



# SEQUENCE LISTING

<110> Mayo Foundation for Medical Education and Research  
Bayer Healthcare LLC  
Burgess, Christopher  
Myerow, Susan  
Thiagalingam, Arunthathi  
Maimonis, Peter  
Molino, Gary  
Burgart, Lawrence  
Boardman, Lisa A.  
Thibodeau, Steven  
Lewis, Marcia

<120> Use of Differentially Expressed Nucleic Acid Sequences as  
Biomarkers for Cancer

<130> 1657/2022

<140> US 10/700,439

<141> 2003-11-04

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<212> DNA

<213> Homo sapiens

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<212> DNA

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<213> Homo sapiens

<400> 13

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<213> Homo sapiens

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<211> 5784

<212> DNA

<213> Homo sapiens

<400> 17

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<211> 841

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 2334

<212> DNA

<213> Homo sapiens

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<211> 921

<212> DNA

<213> Homo sapiens

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<210> 22
<211> 345
<212> DNA
<213> Homo sapiens

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<211> 946
<212> DNA
<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 1128

<212> DNA

<213> Homo sapiens

<400> 48

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<212> DNA

<213> Homo sapiens

<400> 50

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<211> 1309

<212> DNA

<213> Homo sapiens

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<211> 596

<212> DNA

<213> Homo sapiens

<400> 52

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<211> 3218

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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<211> 1994

<212> DNA

<213> Homo sapiens

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<211> 2518

<212> DNA

<213> Homo sapiens

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<210> 61

<211> 1510

<212> DNA

<213> Homo sapiens

<400> 61

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<210> 62

<211> 1104

<212> DNA

<213> Homo sapiens

<400> 62

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<210> 63

<211> 1484

<212> DNA

<213> Homo sapiens

<400> 63

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<211> 1704

<212> DNA

<213> Homo sapiens

<400> 64

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<211> 1182  
 <212> DNA  
 <213> Homo sapiens

<400> 65

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<210> 66  
 <211> 2786  
 <212> DNA  
 <213> Homo sapiens

<400> 66

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<211> 2578

<212> DNA

<213> Homo sapiens

<400> 70

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<211> 2657

<212> DNA

<213> Homo sapiens

<400> 71

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<211> 2107

<212> DNA

<213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

<400> 73

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 <212> DNA  
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<400> 74

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 386

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<213> Homo sapiens

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<210> 86

<211> 2058

<212> DNA

<213> Homo sapiens

<400> 86

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<210> 87

<211> 3311

<212> DNA

<213> Homo sapiens

<400> 87

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 <211> 468  
 <212> DNA  
 <213> Homo sapiens

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 <211> 1551  
 <212> DNA  
 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

<400> 90  
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<210> 91
<211> 396
<212> DNA
<213> Homo sapiens

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<400> 91
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<210> 92
<211> 632
<212> DNA
<213> Homo sapiens

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<400> 92
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<210> 93
<211> 257
<212> DNA
<213> Homo sapiens

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<400> 93
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<210> 94
<211> 422
<212> PRT
<213> Homo sapiens

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<400> 94
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<213> Homo sapiens

<400> 95

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Arg	Ile	Ser	Cys	Pro	Glu	Gly	Thr	Asn	Ala	Tyr	Arg	Ser	Tyr	Cys	Tyr
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Gln	Asn	Met	Asn	Ser	Gly	Asn	Leu	Val	Ser	Val	Leu	Thr	Gln	Ala	Glu
65					70				75					80	
Gly	Ala	Phe	Val	Ala	Ser	Leu	Ile	Lys	Glu	Ser	Gly	Thr	Asp	Asp	Phe
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<210> 96

<211> 166

<212> PRT

<213> Homo sapiens

<400> 96

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		35				40					45				
Tyr	Phe	Asn	Glu	Asp	Pro	Glu	Thr	Trp	Val	Asp	Ala	Asp	Leu	Tyr	Cys
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Gln	Asn	Met	Asn	Ser	Gly	Asn	Leu	Val	Ser	Val	Leu	Thr	Gln	Ala	Glu
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Gly	Ala	Phe	Val	Ala	Ser	Leu	Ile	Lys	Glu	Ser	Ser	Thr	Asp	Asp	Ser
			85					90					95		
Asn	Val	Trp	Ile	Gly	Leu	His	Asp	Pro	Lys	Lys	Asn	Arg	Arg	Trp	His
		100					105					110			
Trp	Ser	Ser	Gly	Ser	Leu	Val	Ser	Tyr	Lys	Ser	Trp	Asp	Thr	Gly	Ser
	115					120					125				
Pro	Ser	Ser	Ala	Asn	Ala	Gly	Tyr	Cys	Ala	Ser	Leu	Thr	Ser	Cys	Ser
	130				135					140					
Gly	Phe	Lys	Lys	Trp	Lys	Asp	Glu	Ser	Cys	Glu	Lys	Lys	Phe	Ser	Phe
145					150				155						160
Val	Cys	Lys	Phe	Lys	Asn										
				165											



<210> 97  
 <211> 411  
 <212> PRT  
 <213> Homo sapiens

<400> 97

Met	Trp	Ser	Gly	Trp	Trp	Leu	Trp	Pro	Leu	Val	Ala	Val	Cys	Thr	Ala
1				5					10					15	
Asp	Phe	Phe	Arg	Asp	Glu	Ala	Glu	Arg	Ile	Met	Arg	Asp	Ser	Pro	Val
			20					25					30		
Ile	Asp	Gly	His	Asn	Asp	Leu	Pro	Trp	Gln	Leu	Leu	Asp	Met	Phe	Asn
		35					40					45			
Asn	Arg	Leu	Gln	Asp	Glu	Arg	Ala	Asn	Leu	Thr	Thr	Leu	Ala	Gly	Thr
		50				55					60				
His	Thr	Asn	Ile	Pro	Lys	Leu	Arg	Ala	Gly	Phe	Val	Gly	Gly	Gln	Phe
65					70					75					80
Trp	Ser	Val	Tyr	Thr	Pro	Cys	Asp	Thr	Gln	Asn	Lys	Asp	Ala	Val	Arg
				85					90					95	
Arg	Thr	Leu	Glu	Gln	Met	Asp	Val	Val	His	Arg	Met	Cys	Arg	Met	Tyr
			100					105				110			
Pro	Glu	Thr	Phe	Leu	Tyr	Val	Thr	Ser	Ser	Ala	Gly	Ile	Arg	Gln	Ala
		115					120					125			
Phe	Arg	Glu	Gly	Lys	Val	Ala	Ser	Leu	Ile	Gly	Val	Glu	Gly	Gly	His
	130					135					140				
Ser	Ile	Asp	Ser	Ser	Leu	Gly	Val	Leu	Arg	Ala	Leu	Tyr	Gln	Leu	Gly
145					150					155					160
Met	Arg	Tyr	Leu	Thr	Leu	Thr	His	Ser	Cys	Asn	Thr	Pro	Trp	Ala	Asp
				165					170					175	
Asn	Trp	Leu	Val	Asp	Thr	Gly	Asp	Ser	Glu	Pro	Gln	Ser	Gln	Gly	Leu
			180					185				190			
Ser	Pro	Phe	Gly	Gln	Arg	Val	Val	Lys	Glu	Leu	Asn	Arg	Leu	Gly	Val
		195					200					205			
Leu	Ile	Asp	Leu	Ala	His	Val	Ser	Val	Ala	Thr	Met	Lys	Ala	Thr	Leu
	210					215					220				
Gln	Leu	Ser	Arg	Ala	Pro	Val	Ile	Phe	Ser	His	Ser	Ser	Ala	Tyr	Ser
225					230					235					240
Val	Cys	Ala	Ser	Arg	Arg	Asn	Val	Pro	Asp	Asp	Val	Leu	Arg	Leu	Val
				245					250					255	
Lys	Gln	Thr	Asp	Ser	Leu	Val	Met	Val	Asn	Phe	Tyr	Asn	Asn	Tyr	Ile
			260					265					270		
Ser	Cys	Thr	Asn	Lys	Ala	Asn	Leu	Ser	Gln	Val	Ala	Asp	His	Leu	Asp
		275				280						285			
His	Ile	Lys	Glu	Val	Ala	Gly	Ala	Arg	Ala	Val	Gly	Phe	Gly	Gly	Asp
	290					295					300				
Phe	Asp	Gly	Val	Pro	Arg	Val	Pro	Glu	Gly	Leu	Glu	Asp	Val	Ser	Lys
305					310					315					320
Tyr	Pro	Asp	Leu	Ile	Ala	Glu	Leu	Leu	Arg	Arg	Asn	Trp	Thr	Glu	Ala
				325					330					335	
Glu	Val	Lys	Gly	Ala	Leu	Ala	Asp	Asn	Leu	Leu	Arg	Val	Phe	Glu	Ala
			340					345					350		
Val	Glu	Gln	Ala	Ser	Asn	Leu	Thr	Gln	Ala	Pro	Glu	Glu	Glu	Pro	Ile
			355				360					365			
Pro	Leu	Asp	Gln	Leu	Gly	Gly	Ser	Cys	Arg	Thr	His	Tyr	Gly	Tyr	Ser
	370				375						380				
Ser	Gly	Ala	Ser	Ser	Leu	His	Arg	His	Trp	Gly	Leu	Leu	Leu	Ala	Ser
385					390					395					400
Leu	Ala	Pro	Leu	Val	Leu	Cys	Leu	Ser	Leu	Leu					

405

410

&lt;210&gt; 98

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 98

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Met Thr Ser Lys Leu Ala Val Ala Leu Leu Ala Ala Phe Leu Ile Ser
 1          5          10          15
Ala Ala Leu Cys Glu Gly Ala Val Leu Pro Arg Ser Ala Lys Glu Leu
          20          25          30
Arg Cys Gln Cys Ile Lys Thr Tyr Ser Lys Pro Phe His Pro Lys Phe
          35          40          45
Ile Lys Glu Leu Arg Val Ile Glu Ser Gly Pro His Cys Ala Asn Thr
          50          55          60
Glu Ile Ile Val Lys Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro
65          70          75          80
Lys Glu Asn Trp Val Gln Arg Val Val Glu Lys Phe Leu Lys Arg Ala
          85          90          95
Glu Asn Ser

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&lt;210&gt; 99

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 99

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Met His Ser Phe Pro Pro Leu Leu Leu Leu Leu Phe Trp Gly Val Val
 1          5          10          15
Ser His Ser Phe Pro Ala Thr Leu Glu Thr Gln Glu Gln Asp Val Asp
          20          25          30
Leu Val Gln Lys Tyr Leu Glu Lys Tyr Tyr Asn Leu Lys Asn Asp Gly
          35          40          45
Arg Gln Val Glu Lys Arg Arg Asn Ser Gly Pro Val Val Glu Lys Leu
50          55          60
Lys Gln Met Gln Glu Phe Phe Gly Leu Lys Val Thr Gly Lys Pro Asp
65          70          75          80
Ala Glu Thr Leu Lys Val Met Lys Gln Pro Arg Cys Gly Val Pro Asp
          85          90          95
Val Ala Gln Phe Val Leu Thr Glu Gly Asn Pro Arg Trp Glu Gln Thr
          100          105          110
His Leu Thr Tyr Arg Ile Glu Asn Tyr Thr Pro Asp Leu Pro Arg Ala
          115          120          125
Asp Val Asp His Ala Ile Glu Lys Ala Phe Gln Leu Trp Ser Asn Val
          130          135          140
Thr Pro Leu Thr Phe Thr Lys Val Ser Glu Gly Gln Ala Asp Ile Met
145          150          155          160
Ile Ser Phe Val Arg Gly Asp His Arg Asp Asn Ser Pro Phe Asp Gly
          165          170          175
Pro Gly Gly Asn Leu Ala His Ala Phe Gln Pro Gly Pro Gly Ile Gly
          180          185          190
Gly Asp Ala His Phe Asp Glu Asp Glu Arg Trp Thr Asn Asn Phe Arg
          195          200          205

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Glu Tyr Asn Leu His Arg Val Ala Ala His Glu Leu Gly His Ser Leu  
 210 215 220  
 Gly Leu Ser His Ser Thr Asp Ile Gly Ala Leu Met Tyr Pro Ser Tyr  
 225 230 235 240  
 Thr Phe Ser Gly Asp Val Gln Leu Ala Gln Asp Asp Ile Asp Gly Ile  
 245 250 255  
 Gln Ala Ile Tyr Gly Arg Ser Gln Asn Pro Val Gln Pro Ile Gly Pro  
 260 265 270  
 Gln Thr Pro Lys Ala Cys Asp Ser Lys Leu Thr Phe Asp Ala Ile Thr  
 275 280 285  
 Thr Ile Arg Gly Glu Val Met Phe Phe Lys Asp Arg Phe Tyr Met Arg  
 290 295 300  
 Thr Asn Pro Phe Tyr Pro Glu Val Glu Leu Asn Phe Ile Ser Val Phe  
 305 310 315 320  
 Trp Pro Gln Leu Pro Asn Gly Leu Glu Ala Ala Tyr Glu Phe Ala Asp  
 325 330 335  
 Arg Asp Glu Val Arg Phe Phe Lys Gly Asn Lys Tyr Trp Ala Val Gln  
 340 345 350  
 Gly Gln Asn Val Leu His Gly Tyr Pro Lys Asp Ile Tyr Ser Ser Phe  
 355 360 365  
 Gly Phe Pro Arg Thr Val Lys His Ile Asp Ala Ala Leu Ser Glu Glu  
 370 375 380  
 Asn Thr Gly Lys Thr Tyr Phe Phe Val Ala Asn Lys Tyr Trp Arg Tyr  
 385 390 395 400  
 Asp Glu Tyr Lys Arg Ser Met Asp Pro Gly Tyr Pro Lys Met Ile Ala  
 405 410 415  
 His Asp Phe Pro Gly Ile Gly His Lys Val Asp Ala Val Phe Met Lys  
 420 425 430  
 Asp Gly Phe Phe Tyr Phe Phe His Gly Thr Arg Gln Tyr Lys Phe Asp  
 435 440 445  
 Pro Lys Thr Lys Arg Ile Leu Thr Leu Gln Lys Ala Asn Ser Trp Phe  
 450 455 460  
 Asn Cys Arg Lys Asn  
 465

<210> 100  
 <211> 267  
 <212> PRT  
 <213> Homo sapiens

<400> 100  
 Met Arg Leu Thr Val Leu Cys Ala Val Cys Leu Leu Pro Gly Ser Leu  
 1 5 10 15  
 Ala Leu Pro Leu Pro Gln Glu Ala Gly Gly Met Ser Glu Leu Gln Trp  
 20 25 30  
 Glu Gln Ala Gln Asp Tyr Leu Lys Arg Phe Tyr Leu Tyr Asp Ser Glu  
 35 40 45  
 Thr Lys Asn Ala Asn Ser Leu Glu Ala Lys Leu Lys Glu Met Gln Lys  
 50 55 60  
 Phe Phe Gly Leu Pro Ile Thr Gly Met Leu Asn Ser Arg Val Ile Glu  
 65 70 75 80  
 Ile Met Gln Lys Pro Arg Cys Gly Val Pro Asp Val Ala Glu Tyr Ser  
 85 90 95  
 Leu Phe Pro Asn Ser Pro Lys Trp Thr Ser Lys Val Val Thr Tyr Arg  
 100 105 110  
 Ile Val Ser Tyr Thr Arg Asp Leu Pro His Ile Thr Val Asp Arg Leu



Asn	Glu	His	Ser	Asp	Val	Ile	Asp	Ser	Gln	Glu	Leu	Ser	Lys	Val	Ser
				245					250					255	
Arg	Glu	Phe	His	Ser	His	Glu	Phe	His	Ser	His	Glu	Asp	Met	Leu	Val
			260					265					270		
Val	Asp	Pro	Lys	Ser	Lys	Glu	Glu	Asp	Lys	His	Leu	Lys	Phe	Arg	Ile
		275					280					285			
Ser	His	Glu	Leu	Asp	Ser	Ala	Ser	Ser	Glu	Val	Asn				
	290					295					300				

<210> 102  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 102

Met	Asn	Gln	Thr	Ala	Ile	Leu	Ile	Cys	Cys	Leu	Ile	Phe	Leu	Thr	Leu
1				5					10					15	
Ser	Gly	Ile	Gln	Gly	Val	Pro	Leu	Ser	Arg	Thr	Val	Arg	Cys	Thr	Cys
			20					25					30		
Ile	Ser	Ile	Ser	Asn	Gln	Pro	Val	Asn	Pro	Arg	Ser	Leu	Glu	Lys	Leu
		35					40					45			
Glu	Ile	Ile	Pro	Ala	Ser	Gln	Phe	Cys	Pro	Arg	Val	Glu	Ile	Ile	Ala
	50					55					60				
Thr	Met	Lys	Lys	Lys	Gly	Glu	Lys	Arg	Cys	Leu	Asn	Pro	Glu	Ser	Lys
65					70					75					80
Ala	Ile	Lys	Asn	Leu	Leu	Lys	Ala	Val	Ser	Lys	Glu	Met	Ser	Lys	Arg
				85					90					95	

Ser Pro

<210> 103  
 <211> 871  
 <212> PRT  
 <213> Homo sapiens

<400> 103

Met	Lys	Tyr	Ser	Cys	Cys	Ala	Leu	Val	Leu	Ala	Val	Leu	Gly	Thr	Glu
1				5					10					15	
Leu	Leu	Gly	Ser	Leu	Cys	Ser	Thr	Val	Arg	Ser	Pro	Arg	Phe	Arg	Gly
			20					25					30		
Arg	Ile	Gln	Gln	Glu	Arg	Lys	Asn	Ile	Arg	Pro	Asn	Ile	Ile	Leu	Val
		35					40					45			
Pro	Thr	Asp	Asp	Gln	Asp	Val	Glu	Leu	Gly	Ser	Leu	Gln	Val	Met	Asn
	50					55					60				
Lys	Thr	Arg	Lys	Ile	Met	Glu	His	Gly	Gly	Ala	Thr	Phe	Ile	Asn	Ala
65					70					75					80
Phe	Val	Thr	Thr	Pro	Met	Cys	Cys	Pro	Ser	Arg	Ser	Ser	Met	Leu	Thr
				85					90					95	
Gly	Lys	Tyr	Val	His	Asn	His	Asn	Val	Tyr	Thr	Asn	Asn	Glu	Asn	Cys
			100					105					110		
Ser	Ser	Pro	Ser	Trp	Gln	Ala	Met	His	Glu	Pro	Arg	Thr	Phe	Ala	Val
		115					120					125			
Tyr	Leu	Asn	Asn	Thr	Gly	Tyr	Arg	Thr	Ala	Phe	Phe	Gly	Lys	Tyr	Leu
	130					135					140				
Asn	Glu	Tyr	Asn	Gly	Ser	Tyr	Ile	Pro	Pro	Gly	Trp	Arg	Glu	Trp	Leu

145					150					155				160
Gly	Leu	Ile	Lys	Asn	Ser	Arg	Phe	Tyr	Asn	Tyr	Thr	Val	Cys	Arg
				165					170					175
Gly	Ile	Lys	Glu	Lys	His	Gly	Phe	Asp	Tyr	Ala	Lys	Asp	Tyr	Phe
			180					185					190	Thr
Asp	Leu	Ile	Thr	Asn	Glu	Ser	Ile	Asn	Tyr	Phe	Lys	Met	Ser	Lys
			195				200					205		Arg
Met	Tyr	Pro	His	Arg	Pro	Val	Met	Met	Val	Ile	Ser	His	Ala	Ala
			210			215					220			Pro
His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Phe	Ser	Lys	Leu	Tyr	Pro
225					230					235				240
Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	Met
			245					250					255	Asp
Lys	His	Trp	Ile	Met	Gln	Tyr	Thr	Gly	Pro	Met	Leu	Pro	Ile	His
			260					265					270	Met
Glu	Phe	Thr	Asn	Ile	Leu	Gln	Arg	Lys	Arg	Leu	Gln	Thr	Leu	Met
			275				280					285		Ser
Val	Asp	Asp	Ser	Val	Glu	Arg	Leu	Tyr	Asn	Met	Leu	Val	Glu	Thr
			290			295					300			Gly
Glu	Leu	Glu	Asn	Thr	Tyr	Ile	Ile	Tyr	Thr	Ala	Asp	His	Gly	Tyr
305					310					315				His
Ile	Gly	Gln	Phe	Gly	Leu	Val	Lys	Gly	Lys	Ser	Met	Pro	Tyr	Asp
			325					330					335	Phe
Asp	Ile	Arg	Val	Pro	Phe	Phe	Ile	Arg	Gly	Pro	Ser	Val	Glu	Pro
			340					345					350	Gly
Ser	Ile	Val	Pro	Gln	Ile	Val	Leu	Asn	Ile	Asp	Leu	Ala	Pro	Thr
			355				360					365		Ile
Leu	Asp	Ile	Ala	Gly	Leu	Asp	Thr	Pro	Pro	Asp	Val	Asp	Gly	Lys
			370			375					380			Ser
Val	Leu	Lys	Leu	Leu	Asp	Pro	Glu	Lys	Pro	Gly	Asn	Arg	Phe	Arg
385					390					395				Thr
Asn	Lys	Lys	Ala	Lys	Ile	Trp	Arg	Asp	Thr	Phe	Leu	Val	Glu	Arg
			405					410					415	Gly
Lys	Phe	Leu	Arg	Lys	Lys	Glu	Glu	Ser	Ser	Lys	Asn	Ile	Gln	Gln
			420					425					430	Ser
Asn	His	Leu	Pro	Lys	Tyr	Glu	Arg	Val	Lys	Glu	Leu	Cys	Gln	Gln
			435				440					445		Ala
Arg	Tyr	Gln	Thr	Ala	Cys	Glu	Gln	Pro	Gly	Gln	Lys	Trp	Gln	Cys
			450			455					460			Ile
Glu	Asp	Thr	Ser	Gly	Lys	Leu	Arg	Ile	His	Lys	Cys	Lys	Gly	Pro
465					470					475				480
Asp	Leu	Leu	Thr	Val	Arg	Gln	Ser	Thr	Arg	Asn	Leu	Tyr	Ala	Arg
			485					490					495	Gly
Phe	His	Asp	Lys	Asp	Lys	Glu	Cys	Ser	Cys	Arg	Glu	Ser	Gly	Tyr
			500					505					510	Arg
Ala	Ser	Arg	Ser	Gln	Arg	Lys	Ser	Gln	Arg	Gln	Phe	Leu	Arg	Asn
			515				520					525		Gln
Gly	Thr	Pro	Lys	Tyr	Lys	Pro	Arg	Phe	Val	His	Thr	Arg	Gln	Thr
			530			535					540			Arg
Ser	Leu	Ser	Val	Glu	Phe	Glu	Gly	Glu	Ile	Tyr	Asp	Ile	Asn	Leu
545					550					555				Glu
Glu	Glu	Glu	Glu	Leu	Gln	Val	Leu	Gln	Pro	Arg	Asn	Ile	Ala	Lys
			565					570					575	Arg
His	Asp	Glu	Gly	His	Lys	Gly	Pro	Arg	Asp	Leu	Gln	Ala	Ser	Ser
			580					585				590		Gly
Gly	Asn	Arg	Gly	Arg	Met	Leu	Ala	Asp	Ser	Ser	Asn	Ala	Val	Gly
			595			600						605		Pro

Pro	Thr	Thr	Val	Arg	Val	Thr	His	Lys	Cys	Phe	Ile	Leu	Pro	Asn	Asp
610						615					620				
Ser	Ile	His	Cys	Glu	Arg	Glu	Leu	Tyr	Gln	Ser	Ala	Arg	Ala	Trp	Lys
625					630					635					640
Asp	His	Lys	Ala	Tyr	Ile	Asp	Lys	Glu	Ile	Glu	Ala	Leu	Gln	Asp	Lys
			645						650					655	
Ile	Lys	Asn	Leu	Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Arg	Arg	Lys	Pro
			660					665					670		
Glu	Glu	Cys	Ser	Cys	Ser	Lys	Gln	Ser	Tyr	Tyr	Asn	Lys	Glu	Lys	Gly
		675					680					685			
Val	Lys	Lys	Gln	Glu	Lys	Leu	Lys	Ser	His	Leu	His	Pro	Phe	Lys	Glu
	690					695					700				
Ala	Ala	Gln	Glu	Val	Asp	Ser	Lys	Leu	Gln	Leu	Phe	Lys	Glu	Asn	Asn
705					710					715					720
Arg	Arg	Arg	Lys	Lys	Glu	Arg	Lys	Glu	Lys	Arg	Arg	Gln	Arg	Lys	Gly
			725						730					735	
Glu	Glu	Cys	Ser	Leu	Pro	Gly	Leu	Thr	Cys	Phe	Thr	His	Asp	Asn	Asn
			740					745					750		
His	Trp	Gln	Thr	Ala	Pro	Phe	Trp	Asn	Leu	Gly	Ser	Phe	Cys	Ala	Cys
		755					760					765			
Thr	Ser	Ser	Asn	Asn	Asn	Thr	Tyr	Trp	Cys	Leu	Arg	Thr	Val	Asn	Glu
	770					775					780				
Thr	His	Asn	Phe	Leu	Phe	Cys	Glu	Phe	Ala	Thr	Gly	Phe	Leu	Glu	Tyr
785					790					795					800
Phe	Asp	Met	Asn	Thr	Asp	Pro	Tyr	Gln	Leu	Thr	Asn	Thr	Val	His	Thr
			805						810					815	
Val	Glu	Arg	Gly	Ile	Leu	Asn	Gln	Leu	His	Val	Gln	Leu	Met	Glu	Leu
			820					825					830		
Arg	Ser	Cys	Gln	Gly	Tyr	Lys	Gln	Cys	Asn	Pro	Arg	Pro	Lys	Asn	Leu
		835					840					845			
Asp	Val	Gly	Asn	Lys	Asp	Gly	Gly	Ser	Tyr	Asp	Leu	His	Arg	Gly	Gln
	850					855					860				
Leu	Trp	Asp	Gly	Trp	Glu	Gly									
865					870										

<210> 104  
 <211> 1496  
 <212> PRT  
 <213> Homo sapiens

<400> 104

Met	Met	Ala	Asn	Trp	Ala	Glu	Ala	Arg	Pro	Leu	Leu	Ile	Leu	Ile	Val
1			5					10						15	
Leu	Leu	Gly	Gln	Phe	Val	Ser	Ile	Lys	Ala	Gln	Glu	Glu	Asp	Glu	Asp
			20					25					30		
Glu	Gly	Tyr	Gly	Glu	Glu	Ile	Ala	Cys	Thr	Gln	Asn	Gly	Gln	Met	Tyr
		35					40					45			
Leu	Asn	Arg	Asp	Ile	Trp	Lys	Pro	Ala	Pro	Cys	Gln	Ile	Cys	Val	Cys
	50					55					60				
Asp	Asn	Gly	Ala	Ile	Leu	Cys	Asp	Lys	Ile	Glu	Cys	Gln	Asp	Val	Leu
65					70					75					80
Asp	Cys	Ala	Asp	Pro	Val	Thr	Pro	Pro	Gly	Glu	Cys	Cys	Pro	Val	Cys
			85						90					95	
Ser	Gln	Thr	Pro	Gly	Gly	Gly	Asn	Thr	Asn	Phe	Gly	Arg	Gly	Arg	Lys
			100					105					110		
Gly	Gln	Lys	Gly	Glu	Pro	Gly	Leu	Val	Pro	Val	Val	Thr	Gly	Ile	Arg

		115				120				125					
Gly	Arg	Pro	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Ser	Gln	Gly	Pro	Arg	Gly
	130					135					140				
Glu	Arg	Gly	Pro	Lys	Gly	Arg	Pro	Gly	Pro	Arg	Gly	Pro	Gln	Gly	Ile
145					150					155					160
Asp	Gly	Glu	Pro	Gly	Val	Pro	Gly	Gln	Pro	Gly	Ala	Pro	Gly	Pro	Pro
				165					170					175	
Gly	His	Pro	Ser	His	Pro	Gly	Pro	Asp	Gly	Leu	Ser	Arg	Pro	Phe	Ser
			180					185					190		
Ala	Gln	Met	Ala	Gly	Leu	Asp	Glu	Lys	Ser	Gly	Leu	Gly	Ser	Gln	Val
		195					200					205			
Gly	Leu	Met	Pro	Gly	Ser	Val	Gly	Pro	Val	Gly	Pro	Arg	Gly	Pro	Gln
	210					215					220				
Gly	Leu	Gln	Gly	Gln	Gln	Gly	Gly	Ala	Gly	Pro	Thr	Gly	Pro	Pro	Gly
225					230					235					240
Glu	Pro	Gly	Asp	Pro	Gly	Pro	Met	Gly	Pro	Ile	Gly	Ser	Arg	Gly	Pro
			245						250					255	
Glu	Gly	Pro	Pro	Gly	Lys	Pro	Gly	Glu	Asp	Gly	Glu	Pro	Gly	Arg	Asn
			260					265					270		
Gly	Asn	Pro	Gly	Glu	Val	Gly	Phe	Ala	Gly	Ser	Pro	Gly	Ala	Arg	Gly
	275						280					285			
Phe	Pro	Gly	Ala	Pro	Gly	Leu	Pro	Gly	Leu	Lys	Gly	His	Arg	Gly	His
	290					295					300				
Lys	Gly	Leu	Glu	Gly	Pro	Lys	Gly	Glu	Val	Gly	Ala	Pro	Gly	Ser	Lys
305					310					315					320
Gly	Glu	Ala	Gly	Pro	Thr	Gly	Pro	Met	Gly	Ala	Met	Gly	Pro	Leu	Gly
			325						330					335	
Pro	Arg	Gly	Met	Pro	Gly	Glu	Arg	Gly	Arg	Leu	Gly	Pro	Gln	Gly	Ala
			340					345					350		
Pro	Gly	Gln	Arg	Gly	Ala	His	Gly	Met	Pro	Gly	Lys	Pro	Gly	Pro	Met
		355					360					365			
Gly	Pro	Leu	Gly	Ile	Pro	Gly	Ser	Ser	Gly	Phe	Pro	Gly	Asn	Pro	Gly
	370					375				380					
Met	Lys	Gly	Glu	Ala	Gly	Pro	Thr	Gly	Ala	Arg	Gly	Pro	Glu	Gly	Pro
385					390					395					400
Gln	Gly	Gln	Arg	Gly	Glu	Thr	Gly	Pro	Pro	Gly	Pro	Val	Gly	Ser	Pro
			405						410				415		
Gly	Leu	Pro	Gly	Ala	Ile	Gly	Thr	Asp	Gly	Thr	Pro	Gly	Pro	Lys	Gly
			420					425					430		
Pro	Thr	Gly	Ser	Pro	Gly	Thr	Ser	Gly	Pro	Pro	Gly	Ser	Ala	Gly	Pro
		435					440					445			
Pro	Gly	Ser	Pro	Gly	Pro	Gln	Gly	Ser	Thr	Gly	Pro	Gln	Gly	Asn	Ser
						455					460				
Gly	Leu	Pro	Gly	Asp	Pro	Gly	Phe	Lys	Gly	Glu	Ala	Gly	Pro	Lys	Gly
465					470					475					480
Glu	Pro	Gly	Pro	His	Gly	Ile	Gln	Gly	Pro	Ile	Gly	Pro	Pro	Gly	Glu
				485					490					495	
Glu	Gly	Lys	Arg	Gly	Pro	Arg	Gly	Asp	Pro	Gly	Thr	Leu	Gly	Pro	Pro
			500					505					510		
Gly	Pro	Val	Gly	Glu	Arg	Gly	Ala	Pro	Gly	Asn	Arg	Gly	Phe	Pro	Gly
		515					520					525			
Ser	Asp	Gly	Leu	Pro	Gly	Pro	Lys	Gly	Ala	Gln	Gly	Glu	Arg	Gly	Pro
	530					535					540				
Val	Gly	Ser	Ser	Gly	Pro	Lys	Gly	Ser	Gln	Gly	Asp	Pro	Gly	Arg	Pro
545					550					555					560
Gly	Glu	Pro	Gly	Leu	Pro	Gly	Ala	Arg	Gly	Leu	Thr	Gly	Asn	Pro	Gly
				565					570					575	



Val	Gln	Gly	Pro	Glu	Gly	Lys	Leu	Gly	Pro	Leu	Gly	Ala	Pro	Gly	Glu	580	585	590
Asp	Gly	Arg	Pro	Gly	Pro	Pro	Gly	Ser	Ile	Gly	Ile	Lys	Gly	Gln	Pro	595	600	605
Gly	Thr	Met	Gly	Leu	Pro	Gly	Pro	Lys	Gly	Ser	Asn	Gly	Asp	Pro	Gly	610	615	620
Lys	Pro	Gly	Glu	Ala	Gly	Asn	Pro	Gly	Val	Pro	Gly	Gln	Arg	Gly	Ala	625	630	635
Pro	Gly	Lys	Asp	Gly	Lys	Val	Gly	Pro	Tyr	Gly	Pro	Pro	Gly	Pro	Pro	645	650	655
Gly	Leu	Arg	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Pro	Pro	Gly	Pro	Thr	Gly	660	665	670
Phe	Gln	Gly	His	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Glu	Gly	Gly	Lys	675	680	685
Pro	Gly	Asp	Gln	Gly	Val	Pro	Gly	Gly	Pro	Gly	Ala	Val	Gly	Pro	Leu	690	695	700
Gly	Pro	Arg	Gly	Glu	Arg	Gly	Asn	Pro	Gly	Glu	Arg	Gly	Glu	Pro	Gly	705	710	715
Ile	Thr	Gly	Leu	Pro	Gly	Glu	Lys	Gly	Met	Ala	Gly	Gly	His	Gly	Pro	725	730	735
Asp	Gly	Pro	Lys	Gly	Ser	Pro	Gly	Pro	Ser	Gly	Thr	Pro	Gly	Asp	Thr	740	745	750
Gly	Pro	Pro	Gly	Leu	Gln	Gly	Met	Pro	Gly	Glu	Arg	Gly	Ile	Ala	Gly	755	760	765
Thr	Pro	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Gly	Ile	Gly	Glu	Lys	Gly	Ala	770	775	780
Glu	Gly	Thr	Ala	Gly	Asn	Asp	Gly	Ala	Gly	Gly	Leu	Pro	Gly	Pro	Leu	785	790	795
Gly	Pro	Pro	Gly	Pro	Ala	Gly	Leu	Leu	Gly	Glu	Lys	Gly	Glu	Pro	Gly	805	810	815
Pro	Arg	Gly	Leu	Val	Gly	Pro	Pro	Gly	Ser	Arg	Gly	Asn	Pro	Gly	Ser	820	825	830
Arg	Gly	Glu	Asn	Gly	Pro	Thr	Gly	Ala	Val	Gly	Phe	Ala	Gly	Pro	Gln	835	840	845
Gly	Ser	Asp	Gly	Gln	Pro	Gly	Val	Lys	Gly	Glu	Pro	Gly	Glu	Pro	Gly	850	855	860
Gln	Lys	Gly	Asp	Ala	Gly	Ser	Pro	Gly	Pro	Gln	Gly	Leu	Ala	Gly	Ser	865	870	875
Pro	Gly	Pro	His	Gly	Pro	Asn	Gly	Val	Pro	Gly	Leu	Lys	Gly	Gly	Arg	885	890	895
Gly	Thr	Gln	Gly	Pro	Pro	Gly	Ala	Thr	Gly	Phe	Pro	Gly	Ser	Ala	Gly	900	905	910
Arg	Val	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ala	Pro	Gly	Pro	Ala	Gly	Pro	915	920	925
Leu	Gly	Glu	Pro	Gly	Lys	Glu	Gly	Pro	Pro	Gly	Pro	Arg	Gly	Asp	Pro	930	935	940
Gly	Ser	His	Gly	Arg	Val	Gly	Val	Arg	Gly	Pro	Ala	Gly	Pro	Pro	Gly	945	950	955
Gly	Pro	Gly	Asp	Lys	Gly	Asp	Pro	Gly	Glu	Asp	Gly	Gln	Pro	Gly	Pro	965	970	975
Asp	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Thr	Thr	Gly	Gln	Arg	Gly	Ile	Val	980	985	990
Gly	Met	Pro	Gly	Gln	Arg	Gly	Glu	Arg	Gly	Met	Pro	Gly	Leu	Pro	Gly	995	1000	1005
Pro	Ala	Gly	Thr	Pro	Gly	Lys	Val	Gly	Pro	Thr	Gly	Ala	Thr	Gly	Asp	1010	1015	1020
Lys	Gly	Pro	Pro	Gly	Pro	Val	Gly	Pro	Pro	Gly	Ser	Asn	Gly	Pro	Val			

1025		1030		1035		1040
Gly Glu Pro Gly	Pro Glu Gly Pro Ala Gly Asn Asp Gly Thr Pro Gly					
	1045		1050		1055	
Arg Asp Gly Ala Val Gly Glu Arg Gly Asp Arg Gly Asp Pro Gly Pro						
	1060		1065		1070	
Ala Gly Leu Pro Gly Ser Gln Gly Ala Pro Gly Thr Pro Gly Pro Val						
	1075		1080		1085	
Gly Ala Pro Gly Asp Ala Gly Gln Arg Gly Asp Pro Gly Ser Arg Gly						
	1090		1095		1100	
Pro Ile Gly His Leu Gly Arg Ala Gly Lys Arg Gly Leu Pro Gly Pro						
1105	1110		1115		1120	
Gln Gly Pro Arg Gly Asp Lys Gly Asp His Gly Asp Arg Gly Asp Arg						
	1125		1130		1135	
Gly Gln Lys Gly His Arg Gly Phe Thr Gly Leu Gln Gly Leu Pro Gly						
	1140		1145		1150	
Pro Pro Gly Pro Asn Gly Glu Gln Gly Ser Ala Gly Ile Pro Gly Pro						
	1155		1160		1165	
Phe Gly Pro Arg Gly Pro Pro Gly Pro Val Gly Pro Ser Gly Lys Glu						
	1170		1175		1180	
Gly Asn Pro Gly Pro Leu Gly Pro Leu Gly Pro Pro Gly Val Arg Gly						
1185	1190		1195		1200	
Ser Val Gly Glu Ala Gly Pro Glu Gly Pro Pro Gly Glu Pro Gly Pro						
	1205		1210		1215	
Pro Gly Pro Pro Gly Pro Pro Gly His Leu Thr Ala Ala Leu Gly Asp						
	1220		1225		1230	
Ile Met Gly His Tyr Asp Glu Ser Met Pro Asp Pro Leu Pro Glu Phe						
	1235		1240		1245	
Thr Glu Asp Gln Ala Ala Pro Asp Asp Lys Asn Lys Thr Asp Pro Gly						
	1250		1255		1260	
Val His Ala Thr Leu Lys Ser Leu Ser Ser Gln Ile Glu Thr Met Arg						
1265	1270		1275		1280	
Ser Pro Asp Gly Ser Lys Lys His Pro Ala Arg Thr Cys Asp Asp Leu						
	1285		1290		1295	
Lys Leu Cys His Ser Ala Lys Gln Ser Gly Glu Tyr Trp Ile Asp Pro						
	1300		1305		1310	
Asn Gln Gly Ser Val Glu Asp Ala Ile Lys Val Tyr Cys Asn Met Glu						
	1315		1320		1325	
Thr Gly Glu Thr Cys Ile Ser Ala Asn Pro Ser Ser Val Pro Arg Lys						
	1330		1335		1340	
Thr Trp Trp Ala Ser Lys Ser Pro Asp Asn Lys Pro Val Trp Tyr Gly						
1345	1350		1355		1360	
Leu Asp Met Asn Arg Gly Ser Gln Phe Ala Tyr Gly Asp His Gln Ser						
	1365		1370		1375	
Pro Asn Thr Ala Ile Thr Gln Met Thr Phe Leu Arg Leu Leu Ser Lys						
	1380		1385		1390	
Glu Ala Ser Gln Asn Ile Thr Tyr Ile Cys Lys Asn Ser Val Gly Tyr						
	1395		1400		1405	
Met Asp Asp Gln Ala Lys Asn Leu Lys Lys Ala Val Val Leu Lys Gly						
	1410		1415		1420	
Ala Asn Asp Leu Asp Ile Lys Ala Glu Gly Asn Ile Arg Phe Arg Tyr						
1425	1430		1435		1440	
Ile Val Leu Gln Asp Thr Cys Ser Lys Arg Asn Gly Asn Val Gly Lys						
	1445		1450		1455	
Thr Val Phe Glu Tyr Arg Thr Gln Asn Val Ala Arg Leu Pro Ile Ile						
	1460		1465		1470	
Asp Leu Ala Pro Val Asp Val Gly Gly Thr Asp Gln Glu Phe Gly Val						
	1475		1480		1485	

Glu Ile Gly Pro Val Cys Phe Val  
 1490 1495

<210> 105  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 105  
 Met Ala Arg Ala Ala Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu  
 1 5 10 15  
 Arg Val Ala Leu Leu Leu Leu Leu Leu Val Ala Ala Gly Arg Arg Ala  
 20 25 30  
 Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr  
 35 40 45  
 Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser Val Asn Val Lys Ser  
 50 55 60  
 Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn  
 65 70 75 80  
 Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro Ile Val Lys Lys Ile  
 85 90 95  
 Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn  
 100 105

<210> 106  
 <211> 89  
 <212> PRT  
 <213> Homo sapiens

<400> 106  
 Met Lys Gly Leu Ala Ala Ala Leu Leu Val Leu Val Cys Thr Met Ala  
 1 5 10 15  
 Leu Cys Ser Cys Ala Gln Val Gly Thr Asn Lys Glu Leu Cys Cys Leu  
 20 25 30  
 Val Tyr Thr Ser Trp Gln Ile Pro Gln Lys Phe Ile Val Asp Tyr Ser  
 35 40 45  
 Glu Thr Ser Pro Gln Cys Pro Lys Pro Gly Val Ile Leu Leu Thr Lys  
 50 55 60  
 Arg Gly Arg Gln Ile Cys Ala Asp Pro Asn Lys Lys Trp Val Gln Lys  
 65 70 75 80  
 Tyr Ile Ser Asp Leu Lys Leu Asn Ala  
 85

<210> 107  
 <211> 796  
 <212> PRT  
 <213> Homo sapiens

<400> 107  
 Met Lys Glu Asn Tyr Cys Leu Gln Ala Ala Leu Val Cys Leu Gly Met  
 1 5 10 15  
 Leu Cys His Ser His Ala Phe Ala Pro Glu Arg Arg Gly His Leu Arg  
 20 25 30  
 Pro Ser Phe His Gly His His Glu Lys Gly Lys Glu Gly Gln Val Leu



Cys	Glu	Ser	Asp	Gln	Thr	Lys	Pro	Leu	Ser	Asn	Gln	Pro	Ile	Val	Thr		
			500					505					510				
Ile	Ser	Ala	Asp	Asp	Lys	Asp	Asp	Thr	Ala	Asn	Gly	Pro	Arg	Phe	Ile		
		515					520					525					
Phe	Ser	Leu	Pro	Pro	Glu	Ile	Ile	His	Asn	Pro	Asn	Phe	Thr	Val	Arg		
	530					535					540						
Asp	Asn	Arg	Asp	Asn	Thr	Ala	Gly	Val	Tyr	Ala	Arg	Arg	Gly	Gly	Phe		
545					550					555					560		
Ser	Arg	Gln	Lys	Gln	Asp	Leu	Tyr	Leu	Leu	Pro	Ile	Val	Ile	Ser	Asp		
			565					570						575			
Gly	Gly	Ile	Pro	Pro	Met	Ser	Ser	Thr	Asn	Thr	Leu	Thr	Ile	Lys	Val		
			580					585					590				
Cys	Gly	Cys	Asp	Val	Asn	Gly	Ala	Leu	Leu	Ser	Cys	Asn	Ala	Glu	Ala		
		595					600					605					
Tyr	Ile	Leu	Asn	Ala	Gly	Leu	Ser	Thr	Gly	Ala	Leu	Ile	Ala	Ile	Leu		
	610					615					620						
Ala	Cys	Ile	Val	Ile	Leu	Leu	Val	Ile	Val	Val	Leu	Phe	Val	Thr	Leu		
625					630					635					640		
Arg	Arg	Gln	Lys	Lys	Glu	Pro	Leu	Ile	Val	Phe	Glu	Glu	Glu	Asp	Val		
			645						650					655			
Arg	Glu	Asn	Ile	Ile	Thr	Tyr	Asp	Asp	Glu	Gly	Gly	Gly	Glu	Glu	Asp		
		660					665					670					
Thr	Glu	Ala	Phe	Asp	Ile	Ala	Thr	Leu	Gln	Asn	Pro	Asp	Gly	Ile	Asn		
	675					680						685					
Gly	Phe	Ile	Pro	Arg	Lys	Asp	Ile	Lys	Pro	Glu	Tyr	Gln	Tyr	Met	Pro		
	690					695					700						
Arg	Pro	Gly	Leu	Arg	Pro	Ala	Pro	Asn	Ser	Val	Asp	Val	Asp	Asp	Phe		
705					710					715					720		
Ile	Asn	Thr	Arg	Ile	Gln	Glu	Ala	Asp	Asn	Asp	Pro	Thr	Ala	Pro	Pro		
			725						730					735			
Tyr	Asp	Ser	Ile	Gln	Ile	Tyr	Gly	Tyr	Glu	Gly	Arg	Gly	Ser	Val	Ala		
		740					745					750					
Gly	Ser	Leu	Ser	Ser	Leu	Glu	Ser	Ala	Thr	Thr	Asp	Ser	Asp	Leu	Asp		
	755					760					765						
Tyr	Asp	Tyr	Leu	Gln	Asn	Trp	Gly	Pro	Arg	Phe	Lys	Lys	Leu	Ala	Asp		
	770				775						780						
Leu	Tyr	Gly	Ser	Lys	Asp	Thr	Phe	Asp	Asp	Asp	Ser						
785					790					795							

<210> 108

<211> 180

<212> PRT

<213> Homo sapiens

<400> 108

Met	Ala	Ser	Thr	Ser	Tyr	Asp	Tyr	Cys	Arg	Val	Pro	Met	Glu	Asp	Gly		
1				5				10						15			
Asp	Lys	Arg	Cys	Lys	Leu	Leu	Leu	Gly	Ile	Gly	Ile	Leu	Val	Leu	Leu		
			20					25					30				
Ile	Ile	Val	Ile	Leu	Gly	Val	Pro	Leu	Ile	Ile	Phe	Thr	Ile	Lys	Ala		
		35					40					45					
Asn	Ser	Glu	Ala	Cys	Arg	Asp	Gly	Leu	Arg	Ala	Val	Met	Glu	Cys	Arg		
	50					55					60						
Asn	Val	Thr	His	Leu	Leu	Gln	Gln	Glu	Leu	Thr	Glu	Ala	Gln	Lys	Gly		
65				70						75				80			
Phe	Gln	Asp	Val	Glu	Ala	Gln	Ala	Ala	Thr	Cys	Asn	His	Thr	Val	Met		

				85					90				95			
Ala	Leu	Met	Ala	Ser	Leu	Asp	Ala	Glu	Lys	Ala	Gln	Gly	Gln	Lys	Lys	
			100					105					110			
Val	Glu	Glu	Leu	Glu	Gly	Glu	Ile	Thr	Thr	Leu	Asn	His	Lys	Leu	Gln	
		115					120					125				
Asp	Ala	Ser	Ala	Glu	Val	Glu	Arg	Leu	Arg	Arg	Glu	Asn	Gln	Val	Leu	
	130					135					140					
Ser	Val	Arg	Ile	Ala	Asp	Lys	Lys	Tyr	Tyr	Pro	Ser	Ser	Gln	Asp	Ser	
145					150					155					160	
Ser	Ser	Ala	Ala	Ala	Pro	Gln	Leu	Leu	Ile	Val	Leu	Leu	Gly	Leu	Ser	
			165					170					175			
Ala	Leu	Leu	Gln													
			180													

<210> 109

<211> 358

<212> PRT

<213> Homo sapiens

<400> 109

Met	Arg	Ala	Thr	Pro	Leu	Ala	Ala	Pro	Ala	Gly	Ser	Leu	Ser	Arg	Lys	
1				5					10					15		
Lys	Arg	Leu	Glu	Leu	Asp	Asp	Asn	Leu	Asp	Thr	Glu	Arg	Pro	Val	Gln	
		20						25					30			
Lys	Arg	Ala	Arg	Ser	Gly	Pro	Gln	Pro	Arg	Leu	Pro	Pro	Cys	Leu	Leu	
		35				40						45				
Pro	Leu	Ser	Pro	Pro	Thr	Ala	Pro	Asp	Arg	Ala	Thr	Ala	Val	Ala	Thr	
	50					55					60					
Ala	Ser	Arg	Leu	Gly	Pro	Tyr	Val	Leu	Leu	Glu	Pro	Glu	Glu	Gly	Gly	
65				70					75					80		
Arg	Ala	Tyr	Gln	Ala	Leu	His	Cys	Pro	Thr	Gly	Thr	Glu	Tyr	Thr	Cys	
			85						90					95		
Lys	Val	Tyr	Pro	Val	Gln	Glu	Ala	Pro	Ala	Val	Leu	Glu	Pro	Tyr	Ala	
			100					105					110			
Arg	Leu	Pro	Pro	His	Lys	His	Val	Ala	Arg	Pro	Thr	Glu	Val	Leu	Ala	
		115				120						125				
Gly	Thr	Gln	Leu	Leu	Tyr	Ala	Phe	Phe	Thr	Arg	Thr	His	Gly	Asp	Met	
	130					135					140					
His	Ser	Leu	Val	Arg	Ser	Arg	His	Arg	Ile	Pro	Glu	Pro	Glu	Ala	Ala	
145				150					155						160	
Val	Leu	Phe	Arg	Gln	Met	Ala	Thr	Ala	Leu	Ala	His	Cys	His	Gln	His	
			165					170						175		
Gly	Leu	Val	Leu	Arg	Asp	Leu	Lys	Leu	Cys	Arg	Phe	Val	Phe	Ala	Asp	
		180						185					190			
Arg	Glu	Arg	Lys	Lys	Leu	Val	Leu	Glu	Asn	Leu	Glu	Asp	Ser	Cys	Val	
		195				200						205				
Leu	Thr	Gly	Pro	Asp	Asp	Ser	Leu	Trp	Asp	Lys	His	Ala	Cys	Pro	Ala	
	210					215						220				
Tyr	Val	Gly	Pro	Glu	Ile	Leu	Ser	Ser	Arg	Ala	Ser	Tyr	Ser	Gly	Lys	
225				230					235						240	
Ala	Ala	Asp	Val	Trp	Ser	Leu	Gly	Val	Ala	Leu	Phe	Thr	Met	Leu	Ala	
			245					250						255		
Gly	His	Tyr	Pro	Phe	Gln	Asp	Ser	Glu	Pro	Val	Leu	Leu	Phe	Gly	Lys	
		260						265					270			
Ile	Arg	Arg	Gly	Ala	Tyr	Ala	Leu	Pro	Ala	Gly	Leu	Ser	Ala	Pro	Ala	
		275					280					285				

Arg	Cys	Leu	Val	Arg	Cys	Leu	Leu	Arg	Arg	Glu	Pro	Ala	Glu	Arg	Leu
290						295				300					
Thr	Ala	Thr	Gly	Ile	Leu	Leu	His	Pro	Trp	Leu	Arg	Gln	Asp	Pro	Met
305					310					315					320
Pro	Leu	Ala	Pro	Thr	Arg	Ser	His	Leu	Trp	Glu	Ala	Ala	Gln	Val	Val
				325					330					335	
Pro	Asp	Gly	Leu	Gly	Leu	Asp	Glu	Ala	Arg	Glu	Glu	Glu	Gly	Asp	Arg
			340					345					350		
Glu	Val	Val	Leu	Tyr	Gly										
			355												

<210> 110

<211> 1172

<212> PRT

<213> Homo sapiens

<400> 110

Met	Val	Trp	Arg	Leu	Val	Leu	Leu	Ala	Leu	Trp	Val	Trp	Pro	Ser	Thr
1				5					10					15	
Gln	Ala	Gly	His	Gln	Asp	Lys	Asp	Thr	Thr	Phe	Asp	Leu	Phe	Ser	Ile
			20					25					30		
Ser	Asn	Ile	Asn	Arg	Lys	Thr	Ile	Gly	Ala	Lys	Gln	Phe	Arg	Gly	Pro
		35					40					45			
Asp	Pro	Gly	Val	Pro	Ala	Tyr	Arg	Phe	Val	Arg	Phe	Asp	Tyr	Ile	Pro
	50					55					60				
Pro	Val	Asn	Ala	Asp	Asp	Leu	Ser	Lys	Ile	Thr	Lys	Ile	Met	Arg	Gln
65					70					75					80
Lys	Glu	Gly	Phe	Phe	Leu	Thr	Ala	Gln	Leu	Lys	Gln	Asp	Gly	Lys	Ser
				85					90					95	
Arg	Gly	Thr	Leu	Leu	Ala	Leu	Glu	Gly	Pro	Gly	Leu	Ser	Gln	Arg	Gln
			100					105					110		
Phe	Glu	Ile	Val	Ser	Asn	Gly	Pro	Ala	Asp	Thr	Leu	Asp	Leu	Thr	Tyr
		115					120					125			
Trp	Ile	Asp	Gly	Thr	Arg	His	Val	Val	Ser	Leu	Glu	Asp	Val	Gly	Leu
	130					135					140				
Ala	Asp	Ser	Gln	Trp	Lys	Asn	Val	Thr	Val	Gln	Val	Ala	Gly	Glu	Thr
145					150					155					160
Tyr	Ser	Leu	His	Val	Gly	Cys	Asp	Leu	Ile	Gly	Pro	Val	Ala	Leu	Asp
			165						170					175	
Glu	Pro	Phe	Tyr	Glu	His	Leu	Gln	Ala	Glu	Lys	Ser	Arg	Met	Tyr	Val
			180					185					190		
Ala	Lys	Gly	Ser	Ala	Arg	Glu	Ser	His	Phe	Arg	Gly	Leu	Leu	Gln	Asn
		195					200					205			
Val	His	Leu	Val	Phe	Glu	Asn	Ser	Val	Glu	Asp	Ile	Leu	Ser	Lys	Lys
	210					215					220				
Gly	Cys	Gln	Gln	Gly	Gln	Gly	Ala	Glu	Ile	Asn	Ala	Ile	Ser	Glu	Asn
225					230					235					240
Thr	Glu	Thr	Leu	Arg	Leu	Gly	Pro	His	Val	Thr	Thr	Glu	Tyr	Val	Gly
				245					250					255	
Pro	Ser	Ser	Glu	Arg	Arg	Pro	Glu	Val	Cys	Glu	Arg	Ser	Cys	Glu	Glu
			260				265						270		
Leu	Gly	Asn	Met	Val	Gln	Glu	Leu	Ser	Gly	Leu	His	Val	Leu	Val	Asn
		275					280					285			
Gln	Leu	Ser	Glu	Asn	Leu	Lys	Arg	Val	Ser	Asn	Asp	Asn	Gln	Phe	Leu
	290					295					300				
Trp	Glu	Leu	Ile	Gly	Gly	Pro	Pro	Lys	Thr	Arg	Asn	Met	Ser	Ala	Cys

305					310					315				320
Trp	Gln	Asp	Gly	Arg	Phe	Phe	Ala	Glu	Asn	Glu	Thr	Trp	Val	Val
				325					330					335
Ser	Cys	Thr	Thr	Cys	Thr	Cys	Lys	Lys	Phe	Lys	Thr	Ile	Cys	His
			340					345					350	Gln
Ile	Thr	Cys	Pro	Pro	Ala	Thr	Cys	Ala	Ser	Pro	Ser	Phe	Val	Glu
		355					360					365	Gly	Gly
Glu	Cys	Cys	Pro	Ser	Cys	Leu	His	Ser	Val	Asp	Gly	Glu	Glu	Gly
	370					375				380				Trp
Ser	Pro	Trp	Ala	Glu	Trp	Thr	Gln	Cys	Ser	Val	Thr	Cys	Gly	Ser
385					390					395				400
Thr	Gln	Gln	Arg	Gly	Arg	Ser	Cys	Asp	Val	Thr	Ser	Asn	Thr	Cys
			405					410					415	Leu
Gly	Pro	Ser	Ile	Gln	Thr	Arg	Ala	Cys	Ser	Leu	Ser	Lys	Cys	Asp
		420					425					430		Thr
Arg	Ile	Arg	Gln	Asp	Gly	Gly	Trp	Ser	His	Trp	Ser	Pro	Trp	Ser
	435					440				445				Ser
Cys	Ser	Val	Thr	Cys	Gly	Val	Gly	Asn	Ile	Thr	Arg	Ile	Arg	Leu
	450				455			460						Cys
Asn	Ser	Pro	Val	Pro	Gln	Met	Gly	Gly	Lys	Asn	Cys	Lys	Gly	Ser
465				470				475						Gly
Arg	Glu	Thr	Lys	Ala	Cys	Gln	Gly	Ala	Pro	Cys	Pro	Ile	Asp	Gly
			485					490					495	Arg
Trp	Ser	Pro	Trp	Ser	Pro	Trp	Ser	Ala	Cys	Thr	Val	Thr	Cys	Ala
		500					505					510		Gly
Gly	Ile	Arg	Glu	Arg	Thr	Arg	Val	Cys	Asn	Ser	Pro	Glu	Pro	Gln
	515					520						525		Tyr
Gly	Gly	Lys	Ala	Cys	Val	Gly	Asp	Val	Gln	Glu	Arg	Gln	Met	Cys
	530				535			540						Asn
Lys	Arg	Ser	Cys	Pro	Val	Asp	Gly	Cys	Leu	Ser	Asn	Pro	Cys	Phe
545				550				555						Pro
Gly	Ala	Gln	Cys	Ser	Ser	Phe	Pro	Asp	Gly	Ser	Trp	Ser	Cys	Gly
			565				570						575	Phe
Cys	Pro	Val	Gly	Phe	Leu	Gly	Asn	Gly	Thr	His	Cys	Glu	Asp	Leu
		580				585						590		Asp
Glu	Cys	Ala	Leu	Val	Pro	Asp	Ile	Cys	Phe	Ser	Thr	Ser	Lys	Val
	595				600						605			Pro
Arg	Cys	Val	Asn	Thr	Gln	Pro	Gly	Phe	His	Cys	Leu	Pro	Cys	Pro
	610				615						620			Pro
Arg	Tyr	Arg	Gly	Asn	Gln	Pro	Val	Gly	Val	Gly	Leu	Glu	Ala	Ala
625				630				635						Lys
Thr	Glu	Lys	Gln	Val	Cys	Glu	Pro	Glu	Asn	Pro	Cys	Lys	Asp	Lys
			645				650						655	Thr
His	Asn	Cys	His	Lys	His	Ala	Glu	Cys	Ile	Tyr	Leu	Gly	His	Phe
		660				665						670		Ser
Asp	Pro	Met	Tyr	Lys	Cys	Glu	Cys	Gln	Thr	Gly	Tyr	Ala	Gly	Asp
	675					680						685		Gly
Leu	Ile	Cys	Gly	Glu	Asp	Ser	Asp	Leu	Asp	Gly	Trp	Pro	Asn	Leu
	690				695					700				Asn
Leu	Val	Cys	Ala	Thr	Asn	Ala	Thr	Tyr	His	Cys	Ile	Lys	Asp	Asn
705				710				715						Cys
Pro	His	Leu	Pro	Asn	Ser	Gly	Gln	Glu	Asp	Phe	Asp	Lys	Asp	Gly
			725				730						735	Ile
Gly	Asp	Ala	Cys	Asp	Asp	Asp	Asp	Asp	Asn	Asp	Gly	Val	Thr	Asp
	740					745						750		Glu
Lys	Asp	Asn	Cys	Gln	Leu	Leu	Phe	Asn	Pro	Arg	Gln	Ala	Asp	Tyr
	755					760					765			Asp



Lys Asp Glu Val Gly Asp Arg Cys Asp Asn Cys Pro Tyr Val His Asn  
 770 775 780  
 Pro Ala Gln Ile Asp Thr Asp Asn Asn Gly Glu Gly Asp Ala Cys Ser  
 785 790 795 800  
 Val Asp Ile Asp Gly Asp Asp Val Phe Asn Glu Arg Asp Asn Cys Pro  
 805 810 815  
 Tyr Val Tyr Asn Thr Asp Gln Arg Asp Thr Asp Gly Asp Gly Val Gly  
 820 825 830  
 Asp His Cys Asp Asn Cys Pro Leu Val His Asn Pro Asp Gln Thr Asp  
 835 840 845  
 Val Asp Asn Asp Leu Val Gly Asp Gln Cys Asp Asn Asn Glu Asp Ile  
 850 855 860  
 Asp Asp Asp Gly His Gln Asn Asn Gln Asp Asn Cys Pro Tyr Ile Ser  
 865 870 875 880  
 Asn Ala Asn Gln Ala Asp His Asp Arg Asp Gly Gln Gly Asp Ala Cys  
 885 890 895  
 Asp Pro Asp Asp Asp Asn Asp Gly Val Pro Asp Asp Arg Asp Asn Cys  
 900 905 910  
 Arg Leu Val Phe Asn Pro Asp Gln Glu Asp Leu Asp Gly Asp Gly Arg  
 915 920 925  
 Gly Asp Ile Cys Lys Asp Asp Phe Asp Asn Asp Asn Ile Pro Asp Ile  
 930 935 940  
 Asp Asp Val Cys Pro Glu Asn Asn Ala Ile Ser Glu Thr Asp Phe Arg  
 945 950 955 960  
 Asn Phe Gln Met Val Pro Leu Asp Pro Lys Gly Thr Thr Gln Ile Asp  
 965 970 975  
 Pro Asn Trp Val Ile Arg His Gln Gly Lys Glu Leu Val Gln Thr Ala  
 980 985 990  
 Asn Ser Asp Pro Gly Ile Ala Val Gly Phe Asp Glu Phe Gly Ser Val  
 995 1000 1005  
 Asp Phe Ser Gly Thr Phe Tyr Val Asn Thr Asp Arg Asp Asp Asp Tyr  
 1010 1015 1020  
 Ala Gly Phe Val Phe Gly Tyr Gln Ser Ser Ser Arg Phe Tyr Val Val  
 1025 1030 1035 1040  
 Met Trp Lys Gln Val Thr Gln Thr Tyr Trp Glu Asp Gln Pro Thr Arg  
 1045 1050 1055  
 Ala Tyr Gly Tyr Ser Gly Val Ser Leu Lys Val Val Asn Ser Thr Thr  
 1060 1065 1070  
 Gly Thr Gly Glu His Leu Arg Asn Ala Leu Trp His Thr Gly Asn Thr  
 1075 1080 1085  
 Pro Gly Gln Val Arg Thr Leu Trp His Asp Pro Arg Asn Ile Gly Trp  
 1090 1095 1100  
 Lys Asp Tyr Thr Ala Tyr Arg Trp His Leu Thr His Arg Pro Lys Thr  
 1105 1110 1115 1120  
 Gly Tyr Ile Arg Val Leu Val His Glu Gly Lys Gln Val Met Ala Asp  
 1125 1130 1135  
 Ser Gly Pro Ile Tyr Asp Gln Thr Tyr Ala Gly Gly Arg Leu Gly Leu  
 1140 1145 1150  
 Phe Val Phe Ser Gln Glu Met Val Tyr Phe Ser Asp Leu Lys Tyr Glu  
 1155 1160 1165  
 Cys Arg Asp Ile  
 1170

<210> 111

<211> 138

<212> PRT

<213> Homo sapiens

<400> 111

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Met Arg Gln Lys Ala Val Ser Leu Phe Leu Cys Tyr Leu Leu Leu Phe
 1          5          10          15
Thr Cys Ser Gly Val Glu Ala Gly Glu Asn Ala Gly Lys Asp Ala Gly
 20          25          30
Lys Lys Lys Cys Ser Glu Ser Ser Asp Ser Gly Ser Gly Phe Trp Lys
 35          40          45
Ala Leu Thr Phe Met Ala Val Gly Gly Gly Leu Ala Val Ala Gly Leu
 50          55          60
Pro Ala Leu Gly Phe Thr Gly Ala Gly Ile Ala Ala Asn Ser Val Ala
 65          70          75          80
Ala Ser Leu Met Ser Trp Ser Ala Ile Leu Asn Gly Gly Gly Val Pro
 85          90          95
Ala Gly Gly Leu Val Ala Thr Leu Gln Ser Leu Gly Ala Gly Gly Ser
 100          105          110
Ser Val Val Ile Gly Asn Ile Gly Ala Leu Met Gly Tyr Ala Thr His
 115          120          125
Lys Tyr Leu Asp Ser Glu Glu Asp Glu Glu
 130          135
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<210> 112

<211> 184

<212> PRT

<213> Homo sapiens

<400> 112

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Met Ser Arg Thr Ala Tyr Thr Val Gly Ala Leu Leu Leu Leu Leu Gly
 1          5          10          15
Thr Leu Leu Pro Ala Ala Glu Gly Lys Lys Lys Gly Ser Gln Gly Ala
 20          25          30
Ile Pro Pro Pro Asp Lys Ala Gln His Asn Asp Ser Glu Gln Thr Gln
 35          40          45
Ser Pro Gln Gln Pro Gly Ser Arg Asn Arg Gly Arg Gly Gln Gly Arg
 50          55          60
Gly Thr Ala Met Pro Gly Glu Glu Val Leu Glu Ser Ser Gln Glu Ala
 65          70          75          80
Leu His Val Thr Glu Arg Lys Tyr Leu Lys Arg Asp Trp Cys Lys Thr
 85          90          95
Gln Pro Leu Lys Gln Thr Ile His Glu Gly Cys Asn Ser Arg Thr
 100          105          110
Ile Ile Asn Arg Phe Cys Tyr Gly Gln Cys Asn Ser Phe Tyr Ile Pro
 115          120          125
Arg His Ile Arg Lys Glu Glu Gly Ser Phe Gln Ser Cys Ser Phe Cys
 130          135          140
Lys Pro Lys Lys Phe Thr Thr Met Met Val Thr Leu Asn Cys Pro Glu
 145          150          155          160
Leu Gln Pro Pro Thr Lys Lys Lys Arg Val Thr Arg Val Lys Gln Cys
 165          170          175
Arg Cys Ile Ser Ile Asp Leu Asp
 180
```

<210> 113

<211> 707

<212> PRT  
 <213> Homo sapiens

<400> 113

Met	Ser	Leu	Trp	Gln	Pro	Leu	Val	Leu	Val	Leu	Leu	Val	Leu	Gly	Cys
1				5				10						15	
Cys	Phe	Ala	Ala	Pro	Arg	Gln	Arg	Gln	Ser	Thr	Leu	Val	Leu	Phe	Pro
			20					25					30		
Gly	Asp	Leu	Arg	Thr	Asn	Leu	Thr	Asp	Arg	Gln	Leu	Ala	Glu	Glu	Tyr
		35					40					45			
Leu	Tyr	Arg	Tyr	Gly	Tyr	Thr	Arg	Val	Ala	Glu	Met	Arg	Gly	Glu	Ser
	50					55					60				
Lys	Ser	Leu	Gly	Pro	Ala	Leu	Leu	Leu	Leu	Gln	Lys	Gln	Leu	Ser	Leu
65					70					75					80
Pro	Glu	Thr	Gly	Glu	Leu	Asp	Ser	Ala	Thr	Leu	Lys	Ala	Met	Arg	Thr
				85					90					95	
Pro	Arg	Cys	Gly	Val	Pro	Asp	Leu	Gly	Arg	Phe	Gln	Thr	Phe	Glu	Gly
			100					105					110		
Asp	Leu	Lys	Trp	His	His	His	Asn	Ile	Thr	Tyr	Trp	Ile	Gln	Asn	Tyr
	115						120					125			
Ser	Glu	Asp	Leu	Pro	Arg	Ala	Val	Ile	Asp	Asp	Ala	Phe	Ala	Arg	Ala
	130					135					140				
Phe	Ala	Leu	Trp	Ser	Ala	Val	Thr	Pro	Leu	Thr	Phe	Thr	Arg	Val	Tyr
145					150					155					160
Ser	Arg	Asp	Ala	Asp	Ile	Val	Ile	Gln	Phe	Gly	Val	Ala	Glu	His	Gly
				165				170						175	
Asp	Gly	Tyr	Pro	Phe	Asp	Gly	Lys	Asp	Gly	Leu	Leu	Ala	His	Ala	Phe
			180					185					190		
Pro	Pro	Gly	Pro	Gly	Ile	Gln	Gly	Asp	Ala	His	Phe	Asp	Asp	Asp	Glu
		195					200					205			
Leu	Trp	Ser	Leu	Gly	Lys	Gly	Val	Val	Val	Pro	Thr	Arg	Phe	Gly	Asn
	210					215					220				
Ala	Asp	Gly	Ala	Ala	Cys	His	Phe	Pro	Phe	Ile	Phe	Glu	Gly	Arg	Ser
225					230					235					240
Tyr	Ser	Ala	Cys	Thr	Thr	Asp	Gly	Arg	Ser	Asp	Gly	Leu	Pro	Trp	Cys
				245					250					255	
Ser	Thr	Thr	Ala	Asn	Tyr	Asp	Thr	Asp	Asp	Arg	Phe	Gly	Phe	Cys	Pro
			260					265					270		
Ser	Glu	Arg	Leu	Tyr	Thr	Arg	Asp	Gly	Asn	Ala	Asp	Gly	Lys	Pro	Cys
	275						280					285			
Gln	Phe	Pro	Phe	Ile	Phe	Gln	Gly	Gln	Ser	Tyr	Ser	Ala	Cys	Thr	Thr
	290					295					300				
Asp	Gly	Arg	Ser	Asp	Gly	Tyr	Arg	Trp	Cys	Ala	Thr	Thr	Ala	Asn	Tyr
305					310					315					320
Asp	Arg	Asp	Lys	Leu	Phe	Gly	Phe	Cys	Pro	Thr	Arg	Ala	Asp	Ser	Thr
			325						330					335	
Val	Met	Gly	Gly	Asn	Ser	Ala	Gly	Glu	Leu	Cys	Val	Phe	Pro	Phe	Thr
			340					345					350		
Phe	Leu	Gly	Lys	Glu	Tyr	Ser	Thr	Cys	Thr	Ser	Glu	Gly	Arg	Gly	Asp
	355						360					365			
Gly	Arg	Leu	Trp	Cys	Ala	Thr	Thr	Ser	Asn	Phe	Asp	Ser	Asp	Lys	Lys
	370					375					380				
Trp	Gly	Phe	Cys	Pro	Asp	Gln	Gly	Tyr	Ser	Leu	Phe	Leu	Val	Ala	Ala
385					390					395					400
His	Glu	Phe	Gly	His	Ala	Leu	Gly	Leu	Asp	His	Ser	Ser	Val	Pro	Glu
				405					410					415	
Ala	Leu	Met	Tyr	Pro	Met	Tyr	Arg	Phe	Thr	Glu	Gly	Pro	Pro	Leu	His

420 425 430  
 Lys Asp Asp Val Asn Gly Ile Arg His Leu Tyr Gly Pro Arg Pro Glu  
 435 440 445  
 Pro Glu Pro Arg Pro Pro Thr Thr Thr Pro Gln Pro Thr Ala Pro  
 450 455 460  
 Pro Thr Val Cys Pro Thr Gly Pro Pro Thr Val His Pro Ser Glu Arg  
 465 470 475 480  
 Pro Thr Ala Gly Pro Thr Gly Pro Pro Ser Ala Gly Pro Thr Gly Pro  
 485 490 495  
 Pro Thr Ala Gly Pro Ser Thr Ala Thr Thr Val Pro Leu Ser Pro Val  
 500 505 510  
 Asp Asp Ala Cys Asn Val Asn Ile Phe Asp Ala Ile Ala Glu Ile Gly  
 515 520 525  
 Asn Gln Leu Tyr Leu Phe Lys Asp Gly Lys Tyr Trp Arg Phe Ser Glu  
 530 535 540  
 Gly Arg Gly Ser Arg Pro Gln Gly Pro Phe Leu Ile Ala Asp Lys Trp  
 545 550 555 560  
 Pro Ala Leu Pro Arg Lys Leu Asp Ser Val Phe Glu Glu Pro Leu Ser  
 565 570 575  
 Lys Lys Leu Phe Phe Phe Ser Gly Arg Gln Val Trp Val Tyr Thr Gly  
 580 585 590  
 Ala Ser Val Leu Gly Pro Arg Arg Leu Asp Lys Leu Gly Leu Gly Ala  
 595 600 605  
 Asp Val Ala Gln Val Thr Gly Ala Leu Arg Ser Gly Arg Gly Lys Met  
 610 615 620  
 Leu Leu Phe Ser Gly Arg Arg Leu Trp Arg Phe Asp Val Lys Ala Gln  
 625 630 635 640  
 Met Val Asp Pro Arg Ser Ala Ser Glu Val Asp Arg Met Phe Pro Gly  
 645 650 655  
 Val Pro Leu Asp Thr His Asp Val Phe Gln Tyr Arg Glu Lys Ala Tyr  
 660 665 670  
 Phe Cys Gln Asp Arg Phe Tyr Trp Arg Val Ser Ser Arg Ser Glu Leu  
 675 680 685  
 Asn Gln Val Asp Gln Val Gly Tyr Val Thr Tyr Asp Ile Leu Gln Cys  
 690 695 700  
 Pro Glu Asp  
 705

<210> 114  
 <211> 194  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Met Ala Ile Arg Glu Leu Lys Val Cys Leu Leu Gly Asp Thr Gly Val  
 1 5 10 15  
 Gly Lys Ser Ser Ile Val Cys Arg Phe Val Gln Asp His Phe Asp His  
 20 25 30  
 Asn Ile Ser Pro Thr Ile Gly Ala Ser Phe Met Thr Lys Thr Val Pro  
 35 40 45  
 Cys Gly Asn Glu Leu His Lys Phe Leu Ile Trp Asp Thr Ala Gly Gln  
 50 55 60  
 Glu Arg Phe His Ser Leu Ala Pro Met Tyr Tyr Arg Gly Ser Ala Ala  
 65 70 75 80  
 Ala Val Ile Val Tyr Asp Ile Thr Lys Gln Asp Ser Phe Tyr Thr Leu  
 85 90 95

Lys Lys Trp Val Lys Glu Leu Lys Glu His Gly Pro Glu Asn Ile Val  
 100 105 110  
 Met Ala Ile Ala Gly Asn Lys Cys Asp Leu Ser Asp Ile Arg Glu Val  
 115 120 125  
 Pro Leu Lys Asp Ala Lys Glu Tyr Ala Glu Ser Ile Gly Ala Ile Val  
 130 135 140  
 Val Glu Thr Ser Ala Lys Asn Ala Ile Asn Ile Glu Glu Leu Phe Gln  
 145 150 155 160  
 Gly Ile Ser Arg Gln Ile Pro Pro Leu Asp Pro His Glu Asn Gly Asn  
 165 170 175  
 Asn Gly Thr Ile Lys Val Glu Lys Pro Thr Met Gln Ala Ser Arg Arg  
 180 185 190  
 Cys Cys

<210> 115  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 115  
 Met Ser Ala Leu Ser Leu Leu Ile Leu Gly Leu Leu Thr Ala Val Pro  
 1 5 10 15  
 Pro Ala Ser Cys Gln Gln Gly Leu Gly Asn Leu Gln Pro Trp Met Gln  
 20 25 30  
 Gly Leu Ile Ala Val Ala Val Phe Leu Val Leu Val Ala Ile Ala Phe  
 35 40 45  
 Ala Val Asn His Phe Trp Cys Gln Glu Glu Pro Glu Pro Ala His Met  
 50 55 60  
 Ile Leu Thr Val Gly Asn Lys Ala Asp Gly Val Leu Val Gly Thr Asp  
 65 70 75 80  
 Gly Arg Tyr Ser Ser Met Ala Ala Ser Phe Arg Ser Ser Glu His Glu  
 85 90 95  
 Asn Ala Tyr Glu Asn Val Pro Glu Glu Glu Gly Lys Val Arg Ser Thr  
 100 105 110  
 Pro Met

<210> 116  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 116  
 Met Ala Leu Glu Thr Val Pro Lys Asp Leu Arg His Leu Arg Ala Cys  
 1 5 10 15  
 Leu Leu Cys Ser Leu Val Lys Thr Ile Asp Gln Phe Glu Tyr Asp Gly  
 20 25 30  
 Cys Asp Asn Cys Asp Ala Tyr Leu Gln Met Lys Gly Asn Arg Glu Met  
 35 40 45  
 Val Tyr Asp Cys Thr Ser Ser Ser Phe Asp Gly Ile Ile Ala Met Met  
 50 55 60  
 Ser Pro Glu Asp Ser Trp Val Ser Lys Trp Gln Arg Val Ser Asn Phe  
 65 70 75 80  
 Lys Pro Gly Val Tyr Ala Val Ser Val Thr Gly Arg Leu Pro Gln Gly

				85					90					95			
Ile	Val	Arg	Glu	Leu	Lys	Ser	Arg	Gly	Val	Ala	Tyr	Lys	Ser	Arg	Asp		
			100					105					110				
Thr	Ala	Ile	Lys	Thr													
			115														

<210> 117  
 <211> 178  
 <212> PRT  
 <213> Homo sapiens

<400> 117																	
Met	Ser	Pro	Ser	Gly	Arg	Leu	Cys	Leu	Leu	Thr	Ile	Val	Gly	Leu	Ile		
1				5					10					15			
Leu	Pro	Thr	Arg	Gly	Gln	Thr	Leu	Lys	Asp	Thr	Thr	Ser	Ser	Ser	Ser		
			20					25					30				
Ala	Asp	Ser	Thr	Ile	Met	Asp	Ile	Gln	Val	Pro	Thr	Arg	Ala	Pro	Asp		
		35				40						45					
Ala	Val	Tyr	Thr	Glu	Leu	Gln	Pro	Thr	Ser	Pro	Thr	Pro	Thr	Trp	Pro		
	50				55					60							
Ala	Asp	Glu	Thr	Pro	Gln	Pro	Gln	Thr	Gln	Thr	Gln	Gln	Leu	Glu	Gly		
65					70				75					80			
Thr	Asp	Gly	Pro	Leu	Val	Thr	Asp	Pro	Glu	Thr	His	Lys	Ser	Thr	Lys		
				85					90					95			
Ala	Ala	His	Pro	Thr	Asp	Asp	Thr	Thr	Leu	Ser	Glu	Arg	Pro	Ser			
			100					105				110					
Pro	Ser	Thr	Asp	Val	Gln	Thr	Asp	Pro	Gln	Thr	Leu	Lys	Pro	Ser	Gly		
		115				120						125					
Phe	His	Glu	Asp	Asp	Pro	Phe	Phe	Tyr	Asp	Glu	His	Thr	Leu	Arg	Lys		
	130					135					140						
Arg	Gly	Leu	Leu	Val	Ala	Ala	Val	Leu	Phe	Ile	Thr	Gly	Ile	Ile	Ile		
145					150				155					160			
Leu	Thr	Ser	Gly	Lys	Cys	Arg	Gln	Leu	Ser	Arg	Leu	Cys	Arg	Asn	Arg		
				165				170						175			
Cys	Arg																

<210> 118  
 <211> 3396  
 <212> PRT  
 <213> Homo sapiens

<400> 118																	
Met	Phe	Ile	Asn	Ile	Lys	Ser	Ile	Leu	Trp	Met	Cys	Ser	Thr	Leu	Ile		
1				5					10					15			
Val	Thr	His	Ala	Leu	His	Lys	Val	Lys	Val	Gly	Lys	Ser	Pro	Pro	Val		
			20					25					30				
Arg	Gly	Ser	Leu	Ser	Gly	Lys	Val	Ser	Leu	Pro	Cys	His	Phe	Ser	Thr		
		35				40						45					
Met	Pro	Thr	Leu	Pro	Pro	Ser	Tyr	Asn	Thr	Ser	Glu	Phe	Leu	Arg	Ile		
	50				55					60							
Lys	Trp	Ser	Lys	Ile	Glu	Val	Asp	Lys	Asn	Gly	Lys	Asp	Leu	Lys	Glu		
65					70				75					80			
Thr	Thr	Val	Leu	Val	Ala	Gln	Asn	Gly	Asn	Ile	Lys	Ile	Gly	Gln	Asp		
				85				90						95			

Tyr	Lys	Gly	Arg	Val	Ser	Val	Pro	Thr	His	Pro	Glu	Ala	Val	Gly	Asp		
			100					105					110				
Ala	Ser	Leu	Thr	Val	Val	Lys	Leu	Leu	Ala	Ser	Asp	Ala	Gly	Leu	Tyr		
		115					120					125					
Arg	Cys	Asp	Val	Met	Tyr	Gly	Ile	Glu	Asp	Thr	Gln	Asp	Thr	Val	Ser		
	130					135					140						
Leu	Thr	Val	Asp	Gly	Val	Val	Phe	His	Tyr	Arg	Ala	Ala	Thr	Ser	Arg		
145					150					155					160		
Tyr	Thr	Leu	Asn	Phe	Glu	Ala	Ala	Gln	Lys	Ala	Cys	Leu	Asp	Val	Gly		
			165					170						175			
Ala	Val	Ile	Ala	Thr	Pro	Glu	Gln	Leu	Phe	Ala	Ala	Tyr	Glu	Asp	Gly		
			180					185					190				
Phe	Glu	Gln	Cys	Asp	Ala	Gly	Trp	Leu	Ala	Asp	Gln	Thr	Val	Arg	Tyr		
		195					200				205						
Pro	Ile	Arg	Ala	Pro	Arg	Val	Gly	Cys	Tyr	Gly	Asp	Lys	Met	Gly	Lys		
	210					215					220						
Ala	Gly	Val	Arg	Thr	Tyr	Gly	Phe	Arg	Ser	Pro	Gln	Glu	Thr	Tyr	Asp		
225				230					235						240		
Val	Tyr	Cys	Tyr	Val	Asp	His	Leu	Asp	Gly	Asp	Val	Phe	His	Leu	Thr		
				245					250					255			
Val	Pro	Ser	Lys	Phe	Thr	Phe	Glu	Glu	Ala	Ala	Lys	Glu	Cys	Glu	Asn		
			260					265					270				
Gln	Asp	Ala	Arg	Leu	Ala	Thr	Val	Gly	Glu	Leu	Gln	Ala	Ala	Trp	Arg		
	275						280					285					
Asn	Gly	Phe	Asp	Gln	Cys	Asp	Tyr	Gly	Trp	Leu	Ser	Asp	Ala	Ser	Val		
	290					295					300						
Arg	His	Pro	Val	Thr	Val	Ala	Arg	Ala	Gln	Cys	Gly	Gly	Gly	Leu	Leu		
305				310					315						320		
Gly	Val	Arg	Thr	Leu	Tyr	Arg	Phe	Glu	Asn	Gln	Thr	Gly	Phe	Pro	Pro		
				325					330					335			
Pro	Asp	Ser	Arg	Phe	Asp	Ala	Tyr	Cys	Phe	Lys	Pro	Lys	Glu	Ala	Thr		
			340				345						350				
Thr	Ile	Asp	Leu	Ser	Ile	Leu	Ala	Glu	Thr	Ala	Ser	Pro	Ser	Leu	Ser		
		355					360					365					
Lys	Glu	Pro	Gln	Met	Val	Ser	Asp	Arg	Thr	Thr	Pro	Ile	Ile	Pro	Leu		
	370					375					380						
Val	Asp	Glu	Leu	Pro	Val	Ile	Pro	Thr	Glu	Phe	Pro	Pro	Val	Gly	Asn		
385					390					395					400		
Ile	Val	Ser	Phe	Glu	Gln	Lys	Ala	Thr	Val	Gln	Pro	Gln	Ala	Ile	Thr		
				405					410					415			
Asp	Ser	Leu	Ala	Thr	Lys	Leu	Pro	Thr	Pro	Thr	Gly	Ser	Thr	Lys	Lys		
			420					425					430				
Pro	Trp	Asp	Met	Asp	Asp	Tyr	Ser	Pro	Ser	Ala	Ser	Gly	Pro	Leu	Gly		
		435					440					445					
Lys	Leu	Asp	Ile	Ser	Glu	Ile	Lys	Glu	Glu	Val	Leu	Gln	Ser	Thr	Thr		
	450					455					460						
Gly	Val	Ser	His	Tyr	Ala	Thr	Asp	Ser	Trp	Asp	Gly	Val	Val	Glu	Asp		
465					470					475					480		
Lys	Gln	Thr	Gln	Glu	Ser	Val	Thr	Gln	Ile	Glu	Gln	Ile	Glu	Val	Gly		
				485					490					495			
Pro	Leu	Val	Thr	Ser	Met	Glu	Ile	Leu	Lys	His	Ile	Pro	Ser	Lys	Glu		
			500					505					510				
Phe	Pro	Val	Thr	Glu	Thr	Pro	Leu	Val	Thr	Ala	Arg	Met	Ile	Leu	Glu		
		515					520					525					
Ser	Lys	Thr	Glu	Lys	Lys	Met	Val	Ser	Thr	Val	Ser	Glu	Leu	Val	Thr		
	530					535					540						
Thr	Gly	His	Tyr	Gly	Phe	Thr	Leu	Gly	Glu	Glu	Asp	Asp	Glu	Asp	Arg		

545					550					555					560
Thr	Leu	Thr	Val	Gly	Ser	Asp	Glu	Ser	Thr	Leu	Ile	Phe	Asp	Gln	Ile
				565					570					575	
Pro	Glu	Val	Ile	Thr	Val	Ser	Lys	Thr	Ser	Glu	Asp	Thr	Ile	His	Thr
			580					585					590		
His	Leu	Glu	Asp	Leu	Glu	Ser	Val	Ser	Ala	Ser	Thr	Thr	Val	Ser	Pro
		595					600					605			
Leu	Ile	Met	Pro	Asp	Asn	Asn	Gly	Ser	Ser	Met	Asp	Asp	Trp	Glu	Glu
	610					615				620					
Arg	Gln	Thr	Ser	Gly	Arg	Ile	Thr	Glu	Glu	Phe	Leu	Gly	Lys	Tyr	Leu
625					630					635					640
Ser	Thr	Thr	Pro	Phe	Pro	Ser	Gln	His	Arg	Thr	Glu	Ile	Glu	Leu	Phe
				645					650					655	
Pro	Tyr	Ser	Gly	Asp	Lys	Ile	Leu	Val	Glu	Gly	Ile	Ser	Thr	Val	Ile
			660				665					670			
Tyr	Pro	Ser	Leu	Gln	Thr	Glu	Met	Thr	His	Arg	Arg	Glu	Arg	Thr	Glu
		675				680						685			
Thr	Leu	Ile	Pro	Glu	Met	Arg	Thr	Asp	Thr	Tyr	Thr	Asp	Glu	Ile	Gln
	690					695					700				
Glu	Glu	Ile	Thr	Lys	Ser	Pro	Phe	Met	Gly	Lys	Thr	Glu	Glu	Glu	Val
705					710					715					720
Phe	Ser	Gly	Met	Lys	Leu	Ser	Thr	Ser	Leu	Ser	Glu	Pro	Ile	His	Val
				725					730					735	
Thr	Glu	Ser	Ser	Val	Glu	Met	Thr	Lys	Ser	Phe	Asp	Phe	Pro	Thr	Leu
			740					745					750		
Ile	Thr	Lys	Leu	Ser	Ala	Glu	Pro	Thr	Glu	Val	Arg	Asp	Met	Glu	Glu
		755					760					765			
Asp	Phe	Thr	Ala	Thr	Pro	Gly	Thr	Thr	Lys	Tyr	Asp	Glu	Asn	Ile	Thr
	770					775					780				
Thr	Val	Leu	Leu	Ala	His	Gly	Thr	Leu	Ser	Val	Glu	Ala	Ala	Thr	Val
785					790					795					800
Ser	Lys	Trp	Ser	Trp	Asp	Glu	Asp	Asn	Thr	Thr	Ser	Lys	Pro	Leu	Glu
				805				810						815	
Ser	Thr	Glu	Pro	Ser	Ala	Ser	Ser	Lys	Leu	Pro	Pro	Ala	Leu	Leu	Thr
			820					825					830		
Thr	Val	Gly	Met	Asn	Gly	Lys	Asp	Lys	Asp	Ile	Pro	Ser	Phe	Thr	Glu
		835					840					845			
Asp	Gly	Ala	Asp	Glu	Phe	Thr	Leu	Ile	Pro	Asp	Ser	Thr	Gln	Lys	Gln
	850					855				860					
Leu	Glu	Glu	Val	Thr	Asp	Glu	Asp	Ile	Ala	Ala	His	Gly	Lys	Phe	Thr
865					870				875						880
Ile	Arg	Phe	Gln	Pro	Thr	Thr	Ser	Thr	Gly	Ile	Ala	Glu	Lys	Ser	Thr
				885					890					895	
Leu	Arg	Asp	Ser	Thr	Thr	Glu	Glu	Lys	Val	Pro	Pro	Ile	Thr	Ser	Thr
			900					905					910		
Glu	Gly	Gln	Val	Tyr	Ala	Thr	Met	Glu	Gly	Ser	Ala	Leu	Gly	Glu	Val
		915					920					925			
Glu	Asp	Val	Asp	Leu	Ser	Lys	Pro	Val	Ser	Thr	Val	Pro	Gln	Phe	Ala
	930					935					940				
His	Thr	Ser	Glu	Val	Glu	Gly	Leu	Ala	Phe	Val	Ser	Tyr	Ser	Ser	Thr
945					950					955					960
Gln	Glu	Pro	Thr	Thr	Tyr	Val	Asp	Ser	Ser	His	Thr	Ile	Pro	Leu	Ser
				965					970					975	
Val	Ile	Pro	Lys	Thr	Asp	Trp	Gly	Val	Leu	Val	Pro	Ser	Val	Pro	Ser
			980					985					990		
Glu	Asp	Glu	Val	Leu	Gly	Glu	Pro	Ser	Gln	Asp	Ile	Leu	Val	Ile	Asp
		995					1000					1005			



Gln Thr Arg Leu Glu Ala Thr Ile Ser Pro Glu Thr Met Arg Thr Thr  
 1010 1015 1020  
 Lys Ile Thr Glu Gly Thr Thr Gln Glu Glu Phe Pro Trp Lys Glu Gln  
 1025 1030 1035 1040  
 Thr Ala Glu Lys Pro Val Pro Ala Leu Ser Ser Thr Ala Trp Thr Pro  
 1045 1050 1055  
 Lys Glu Ala Val Thr Pro Leu Asp Glu Gln Glu Gly Asp Gly Ser Ala  
 1060 1065 1070  
 Tyr Thr Val Ser Glu Asp Glu Leu Leu Thr Gly Ser Glu Arg Val Pro  
 1075 1080 1085  
 Val Leu Glu Thr Thr Pro Val Gly Lys Ile Asp His Ser Val Ser Tyr  
 1090 1095 1100  
 Pro Pro Gly Ala Val Thr Glu His Lys Val Lys Thr Asp Glu Val Val  
 1105 1110 1115 1120  
 Thr Leu Thr Pro Arg Ile Gly Pro Lys Val Ser Leu Ser Pro Gly Pro  
 1125 1130 1135  
 Glu Gln Lys Tyr Glu Thr Glu Gly Ser Ser Thr Thr Gly Phe Thr Ser  
 1140 1145 1150  
 Ser Leu Ser Pro Phe Ser Thr His Ile Thr Gln Leu Met Glu Glu Thr  
 1155 1160 1165  
 Thr Thr Glu Lys Thr Ser Leu Glu Asp Ile Asp Leu Gly Ser Gly Leu  
 1170 1175 1180  
 Phe Glu Lys Pro Lys Ala Thr Glu Leu Ile Glu Phe Ser Thr Ile Lys  
 1185 1190 1195 1200  
 Val Thr Val Pro Ser Asp Ile Thr Thr Ala Phe Ser Ser Val Asp Arg  
 1205 1210 1215  
 Leu His Thr Thr Ser Ala Phe Lys Pro Ser Ser Ala Ile Thr Lys Lys  
 1220 1225 1230  
 Pro Pro Leu Ile Asp Arg Glu Pro Gly Glu Glu Thr Thr Ser Asp Met  
 1235 1240 1245  
 Val Ile Ile Gly Glu Ser Thr Ser His Val Pro Pro Thr Thr Leu Glu  
 1250 1255 1260  
 Asp Ile Val Ala Lys Glu Thr Glu Thr Asp Ile Asp Arg Glu Tyr Phe  
 1265 1270 1275 1280  
 Thr Thr Ser Ser Pro Pro Ala Thr Gln Pro Thr Arg Pro Pro Thr Val  
 1285 1290 1295  
 Glu Asp Lys Glu Ala Phe Gly Pro Gln Ala Leu Ser Thr Pro Gln Pro  
 1300 1305 1310  
 Pro Ala Ser Thr Lys Phe His Pro Asp Ile Asn Val Tyr Ile Ile Glu  
 1315 1320 1325  
 Val Arg Glu Asn Lys Thr Gly Arg Met Ser Asp Leu Ser Val Ile Gly  
 1330 1335 1340  
 His Pro Ile Asp Ser Glu Ser Lys Glu Asp Glu Pro Cys Ser Glu Glu  
 1345 1350 1355 1360  
 Thr Asp Pro Val His Asp Leu Met Ala Glu Ile Leu Pro Glu Phe Pro  
 1365 1370 1375  
 Asp Ile Ile Glu Ile Asp Leu Tyr His Ser Glu Glu Asn Glu Glu Glu  
 1380 1385 1390  
 Glu Glu Glu Cys Ala Asn Ala Thr Asp Val Thr Thr Thr Pro Ser Val  
 1395 1400 1405  
 Gln Tyr Ile Asn Gly Lys His Leu Val Thr Thr Val Pro Lys Asp Pro  
 1410 1415 1420  
 Glu Ala Ala Glu Ala Arg Arg Gly Gln Phe Glu Ser Val Ala Pro Ser  
 1425 1430 1435 1440  
 Gln Asn Phe Ser Asp Ser Ser Glu Ser Asp Thr His Pro Phe Val Ile  
 1445 1450 1455  
 Ala Lys Thr Glu Leu Ser Thr Ala Val Gln Pro Asn Glu Ser Thr Glu



Ile Arg Gly Phe Ser Thr Gly Phe Pro Leu Glu Glu Asp Phe Ser Gly  
1925 1930 1935  
Asp Phe Arg Glu Tyr Ser Thr Val Ser His Pro Ile Ala Lys Glu Glu  
1940 1945 1950  
Thr Val Met Met Glu Gly Ser Gly Asp Ala Ala Phe Arg Asp Thr Gln  
1955 1960 1965  
Thr Ser Pro Ser Thr Val Pro Thr Ser Val His Ile Ser His Ile Ser  
1970 1975 1980  
Asp Ser Glu Gly Pro Ser Ser Thr Met Val Ser Thr Ser Ala Phe Pro  
1985 1990 1995 2000  
Trp Glu Glu Phe Thr Ser Ser Ala Glu Gly Ser Gly Glu Gln Leu Val  
2005 2010 2015  
Thr Val Ser Ser Ser Val Val Pro Val Leu Pro Ser Ala Val Gln Lys  
2020 2025 2030  
Phe Ser Gly Thr Ala Ser Ser Ile Ile Asp Glu Gly Leu Gly Glu Val  
2035 2040 2045  
Gly Thr Val Asn Glu Ile Asp Arg Arg Ser Thr Ile Leu Pro Thr Ala  
2050 2055 2060  
Glu Val Glu Gly Thr Lys Ala Pro Val Glu Lys Glu Glu Val Lys Val  
2065 2070 2075 2080  
Ser Gly Thr Val Ser Thr Asn Phe Pro Gln Thr Ile Glu Pro Ala Lys  
2085 2090 2095  
Leu Trp Ser Arg Gln Glu Val Asn Pro Val Arg Gln Glu Ile Glu Ser  
2100 2105 2110  
Glu Thr Thr Ser Glu Glu Gln Ile Gln Glu Glu Lys Ser Phe Glu Ser  
2115 2120 2125  
Pro Gln Asn Ser Pro Ala Thr Glu Gln Thr Ile Phe Asp Ser Gln Thr  
2130 2135 2140  
Phe Thr Glu Thr Glu Leu Lys Thr Thr Asp Tyr Ser Val Leu Thr Thr  
2145 2150 2155 2160  
Lys Lys Thr Tyr Ser Asp Asp Lys Glu Met Lys Glu Glu Asp Thr Ser  
2165 2170 2175  
Leu Val Asn Met Ser Thr Pro Asp Pro Asp Ala Asn Gly Leu Glu Ser  
2180 2185 2190  
Tyr Thr Thr Leu Pro Glu Ala Thr Glu Lys Ser His Phe Phe Leu Ala  
2195 2200 2205  
Thr Ala Leu Val Thr Glu Ser Ile Pro Ala Glu His Val Val Thr Asp  
2210 2215 2220  
Ser Pro Ile Lys Lys Glu Glu Ser Thr Lys His Phe Pro Lys Gly Met  
2225 2230 2235 2240  
Arg Pro Thr Ile Gln Glu Ser Asp Thr Glu Leu Leu Phe Ser Gly Leu  
2245 2250 2255  
Gly Ser Gly Glu Glu Val Leu Pro Thr Leu Pro Thr Glu Ser Val Asn  
2260 2265 2270  
Phe Thr Glu Val Glu Gln Ile Asn Asn Thr Leu Tyr Pro His Thr Ser  
2275 2280 2285  
Gln Val Glu Ser Thr Ser Ser Asp Lys Ile Glu Asp Phe Asn Arg Met  
2290 2295 2300  
Glu Asn Val Ala Lys Glu Val Gly Pro Leu Val Ser Gln Thr Asp Ile  
2305 2310 2315 2320  
Phe Glu Gly Ser Gly Ser Val Thr Ser Thr Thr Leu Ile Glu Ile Leu  
2325 2330 2335  
Ser Asp Thr Gly Ala Glu Gly Pro Thr Val Ala Pro Leu Pro Phe Ser  
2340 2345 2350  
Thr Asp Ile Gly His Pro Gln Asn Gln Thr Val Arg Trp Ala Glu Glu  
2355 2360 2365  
Ile Gln Thr Ser Arg Pro Gln Thr Ile Thr Glu Gln Asp Ser Asn Lys

2370		2375		2380
Asn Ser Ser Thr Ala Glu Ile Asn Glu Thr Thr Thr Ser Ser Thr Asp				
2385		2390		2395
Phe Leu Ala Arg Ala Tyr Gly Phe Glu Met Ala Lys Glu Phe Val Thr				2400
	2405		2410	2415
Ser Ala Pro Lys Pro Ser Asp Leu Tyr Tyr Glu Pro Ser Gly Glu Gly				
	2420		2425	2430
Ser Gly Glu Val Asp Ile Val Asp Ser Phe His Thr Ser Ala Thr Thr				
	2435		2440	2445
Gln Ala Thr Arg Gln Glu Ser Ser Thr Thr Phe Val Ser Asp Gly Ser				
	2450		2455	2460
Leu Glu Lys His Pro Glu Val Pro Ser Ala Lys Ala Val Thr Ala Asp				
2465		2470		2475
Gly Phe Pro Thr Val Ser Val Met Leu Pro Leu His Ser Glu Gln Asn				2480
	2485		2490	2495
Lys Ser Ser Pro Asp Pro Thr Ser Thr Leu Ser Asn Thr Val Ser Tyr				
	2500		2505	2510
Glu Arg Ser Thr Asp Gly Ser Phe Gln Asp Arg Phe Arg Glu Phe Glu				
	2515		2520	2525
Asp Ser Thr Leu Lys Pro Asn Arg Lys Lys Pro Thr Glu Asn Ile Ile				
	2530		2535	2540
Ile Asp Leu Asp Lys Glu Asp Lys Asp Leu Ile Leu Thr Ile Thr Glu				
2545		2550		2555
Ser Thr Ile Leu Glu Ile Leu Pro Glu Leu Thr Ser Asp Lys Asn Thr				2560
	2565		2570	2575
Ile Ile Asp Ile Asp His Thr Lys Pro Val Tyr Glu Asp Ile Leu Gly				
	2580		2585	2590
Met Gln Thr Asp Ile Asp Thr Glu Val Pro Ser Glu Pro His Asp Ser				
	2595		2600	2605
Asn Asp Glu Ser Asn Asp Asp Ser Thr Gln Val Gln Glu Ile Tyr Glu				
	2610		2615	2620
Ala Ala Val Asn Leu Ser Leu Thr Glu Glu Thr Phe Glu Gly Ser Ala				
2625		2630		2635
Asp Val Leu Ala Ser Tyr Thr Gln Ala Thr His Asp Glu Ser Met Thr				2640
	2645		2650	2655
Tyr Glu Asp Arg Ser Gln Leu Asp His Met Gly Phe His Phe Thr Thr				
	2660		2665	2670
Gly Ile Pro Ala Pro Ser Thr Glu Thr Glu Leu Asp Val Leu Leu Pro				
	2675		2680	2685
Thr Ala Thr Ser Leu Pro Ile Pro Arg Lys Ser Ala Thr Val Ile Pro				
	2690		2695	2700
Glu Ile Glu Gly Ile Lys Ala Glu Ala Lys Ala Leu Asp Asp Met Phe				
2705		2710		2715
Glu Ser Ser Thr Leu Ser Asp Gly Gln Ala Ile Ala Asp Gln Ser Glu				
	2725		2730	2735
Ile Ile Pro Thr Leu Gly Gln Phe Glu Arg Thr Gln Glu Glu Tyr Glu				
	2740		2745	2750
Asp Lys Lys His Ala Gly Pro Ser Phe Gln Pro Glu Phe Ser Ser Gly				
	2755		2760	2765
Ala Glu Glu Ala Leu Val Asp His Thr Pro Tyr Leu Ser Ile Ala Thr				
	2770		2775	2780
Thr His Leu Met Asp Gln Ser Val Thr Glu Val Pro Asp Val Met Glu				
2785		2790		2795
Gly Ser Asn Pro Pro Tyr Tyr Thr Asp Thr Thr Leu Ala Val Ser Thr				
	2805		2810	2815
Phe Ala Lys Leu Ser Ser Gln Thr Pro Ser Ser Pro Leu Thr Ile Tyr				
	2820		2825	2830

Ser Gly Ser Glu Ala Ser Gly His Thr Glu Ile Pro Gln Pro Ser Ala  
2835 2840 2845  
Leu Pro Gly Ile Asp Val Gly Ser Ser Val Met Ser Pro Gln Asp Ser  
2850 2855 2860  
Phe Lys Glu Ile His Val Asn Ile Glu Ala Thr Phe Lys Pro Ser Ser  
2865 2870 2875 2880  
Glu Glu Tyr Leu His Ile Thr Glu Pro Pro Ser Leu Ser Pro Asp Thr  
2885 2890 2895  
Lys Leu Glu Pro Ser Glu Asp Asp Gly Lys Pro Glu Leu Leu Glu Glu  
2900 2905 2910  
Met Glu Ala Ser Pro Thr Glu Leu Ile Ala Val Glu Gly Thr Glu Ile  
2915 2920 2925  
Leu Gln Asp Phe Gln Asn Lys Thr Asp Gly Gln Val Ser Gly Glu Ala  
2930 2935 2940  
Ile Lys Met Phe Pro Thr Ile Lys Thr Pro Glu Ala Gly Thr Val Ile  
2945 2950 2955 2960  
Thr Thr Ala Asp Glu Ile Glu Leu Glu Gly Ala Thr Gln Trp Pro His  
2965 2970 2975  
Ser Thr Ser Ala Ser Ala Thr Tyr Gly Val Glu Ala Gly Val Val Pro  
2980 2985 2990  
Trp Leu Ser Pro Gln Thr Ser Glu Arg Pro Thr Leu Ser Ser Ser Pro  
2995 3000 3005  
Glu Ile Asn Pro Glu Thr Gln Ala Ala Leu Ile Arg Gly Gln Asp Ser  
3010 3015 3020  
Thr Ile Ala Ala Ser Glu Gln Gln Val Ala Ala Arg Ile Leu Asp Ser  
3025 3030 3035 3040  
Asn Asp Gln Ala Thr Val Asn Pro Val Glu Phe Asn Thr Glu Val Ala  
3045 3050 3055  
Thr Pro Pro Phe Ser Leu Leu Glu Thr Ser Asn Glu Thr Asp Phe Leu  
3060 3065 3070  
Ile Gly Ile Asn Glu Glu Ser Val Glu Gly Thr Ala Ile Tyr Leu Pro  
3075 3080 3085  
Gly Pro Asp Arg Cys Lys Met Asn Pro Cys Leu Asn Gly Gly Thr Cys  
3090 3095 3100  
Tyr Pro Thr Glu Thr Ser Tyr Val Cys Thr Cys Val Pro Gly Tyr Ser  
3105 3110 3115 3120  
Gly Asp Gln Cys Glu Leu Asp Phe Asp Glu Cys His Ser Asn Pro Cys  
3125 3130 3135  
Arg Asn Gly Ala Thr Cys Val Asp Gly Phe Asn Thr Phe Arg Cys Leu  
3140 3145 3150  
Cys Leu Pro Ser Tyr Val Gly Ala Leu Cys Glu Gln Asp Thr Glu Thr  
3155 3160 3165  
Cys Asp Tyr Gly Trp His Lys Phe Gln Gly Gln Cys Tyr Lys Tyr Phe  
3170 3175 3180  
Ala His Arg Arg Thr Trp Asp Ala Ala Glu Arg Glu Cys Arg Leu Gln  
3185 3190 3195 3200  
Gly Ala His Leu Thr Ser Ile Leu Ser His Glu Glu Gln Met Phe Val  
3205 3210 3215  
Asn Arg Val Gly His Asp Tyr Gln Trp Ile Gly Leu Asn Asp Lys Met  
3220 3225 3230  
Phe Glu His Asp Phe Arg Trp Thr Asp Gly Ser Thr Leu Gln Tyr Glu  
3235 3240 3245  
Asn Trp Arg Pro Asn Gln Pro Asp Ser Phe Phe Ser Ala Gly Glu Asp  
3250 3255 3260  
Cys Val Val Ile Ile Trp His Glu Asn Gly Gln Trp Asn Asp Val Pro  
3265 3270 3275 3280  
Cys Asn Tyr His Leu Thr Tyr Thr Cys Lys Lys Gly Thr Val Ala Cys



Tyr	Ile	Asn	Gly	Arg	Asn	Ser	Ser	Asp	Val	Leu	Val	Tyr	Val	Thr	Ser
		275					280					285			
Asn	Asp	Thr	Thr	Val	Leu	Leu	Pro	Pro	Tyr	Asp	Asp	Ala	Thr	Val	Asn
	290					295					300				
Gly	Ala	Ala	Lys	Glu	Pro	Pro	Pro	Pro	Tyr	Val	Ser	Ala			
305					310					315					

<210> 120

<211> 474

<212> PRT

<213> Homo sapiens

<400> 120

Met	Val	Gln	Gln	Thr	Asn	Asn	Ala	Glu	Asn	Thr	Glu	Ala	Leu	Leu	Ala
1				5					10					15	
Gly	Glu	Ser	Ser	Asp	Ser	Gly	Ala	Gly	Leu	Glu	Leu	Gly	Ile	Ala	Ser
			20					25					30		
Ser	Pro	Thr	Pro	Gly	Ser	Thr	Ala	Ser	Thr	Gly	Gly	Lys	Ala	Asp	Asp
		35					40					45			
Pro	Ser	Trp	Cys	Lys	Thr	Pro	Ser	Gly	His	Ile	Lys	Arg	Pro	Met	Asn
	50					55					60				
Ala	Phe	Met	Val	Trp	Ser	Gln	Ile	Glu	Arg	Arg	Lys	Ile	Met	Glu	Gln
65					70				75					80	
Ser	Pro	Asp	Met	His	Asn	Ala	Glu	Ile	Ser	Lys	Arg	Leu	Gly	Lys	Arg
				85					90					95	
Trp	Lys	Leu	Leu	Lys	Asp	Ser	Asp	Lys	Ile	Pro	Phe	Ile	Arg	Glu	Ala
			100					105					110		
Glu	Arg	Leu	Arg	Leu	Lys	His	Met	Ala	Asp	Tyr	Pro	Asp	Tyr	Lys	Tyr
			115				120					125			
Arg	Pro	Arg	Lys	Lys	Val	Lys	Ser	Gly	Asn	Ala	Asn	Ser	Ser	Ser	Ser
	130					135					140				
Ala	Ala	Ala	Ser	Ser	Lys	Pro	Gly	Glu	Lys	Gly	Asp	Lys	Val	Gly	Gly
145					150					155				160	
Ser	Gly	Gly	Gly	Gly	His	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ser	Ser
				165					170					175	
Ala	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Ala	Ser	Gly	Gly	Gly	Ala	Asn	Ser
			180					185					190		
Pro	Ala	Gln	Lys	Lys	Ser	Cys	Gly	Ser	Lys	Val	Ala	Gly	Gly	Ala	Gly
		195					200					205			
Gly	Gly	Val	Ser	Lys	Pro	His	Ala	Lys	Leu	Ile	Leu	Ala	Gly	Gly	Gly
	210					215					220				
Gly	Gly	Gly	Lys	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ser	Phe	Ala	Ala	Glu
225					230					235				240	
Gln	Ala	Gly	Ala	Ala	Ala	Leu	Leu	Pro	Leu	Gly	Ala	Ala	Ala	Asp	His
				245					250					255	
His	Ser	Leu	Tyr	Lys	Ala	Arg	Thr	Pro	Ser	Ala	Ser	Ala	Ser	Ala	Ser
			260					265					270		
Ser	Ala	Ala	Ser	Ala	Ser	Ala	Ala	Leu	Ala	Ala	Pro	Gly	Lys	His	Leu
		275					280					285			
Ala	Glu	Lys	Lys	Val	Lys	Arg	Val	Tyr	Leu	Phe	Gly	Gly	Leu	Gly	Thr
	290					295					300				
Ser	Ser	Ser	Pro	Val	Gly	Gly	Val	Gly	Ala	Gly	Ala	Asp	Pro	Ser	Asp
305					310					315				320	
Pro	Leu	Gly	Leu	Tyr	Glu	Glu	Glu	Gly	Ala	Gly	Cys	Ser	Pro	Asp	Ala
				325					330					335	
Pro	Ser	Leu	Ser	Gly	Arg	Ser	Ser	Ala	Ala	Ser	Ser	Pro	Ala	Ala	Gly





Ile	Gln	Ala	Gly	Ile	Tyr	Ala	Thr	Arg	Ser	Gly	Gly	Thr	Leu	Val	Leu	
			260					265					270			
Val	Gly	Leu	Gly	Ser	Glu	Met	Thr	Thr	Val	Pro	Leu	Leu	His	Ala	Ala	
		275					280					285				
Ile	Arg	Glu	Val	Asp	Ile	Lys	Gly	Val	Phe	Arg	Tyr	Cys	Asn	Thr	Trp	
	290					295					300					
Pro	Val	Ala	Ile	Ser	Met	Leu	Ala	Ser	Lys	Ser	Val	Asn	Val	Lys	Pro	
305					310						315				320	
Leu	Val	Thr	His	Arg	Phe	Pro	Leu	Glu	Lys	Ala	Leu	Glu	Ala	Phe	Glu	
				325					330					335		
Thr	Phe	Lys	Lys	Gly	Leu	Gly	Leu	Lys	Ile	Met	Leu	Lys	Cys	Asp	Pro	
			340					345					350			
Ser	Asp	Gln	Asn	Pro												
		355														

<210> 122  
 <211> 470  
 <212> PRT  
 <213> Homo sapiens

<400> 122

Met	Lys	Phe	Leu	Leu	Ile	Leu	Leu	Leu	Gln	Ala	Thr	Ala	Ser	Gly	Ala	
1				5					10					15		
Leu	Pro	Leu	Asn	Ser	Ser	Thr	Ser	Leu	Glu	Lys	Asn	Asn	Val	Leu	Phe	
			20					25					30			
Gly	Glu	Arg	Tyr	Leu	Glu	Lys	Phe	Tyr	Gly	Leu	Glu	Ile	Asn	Lys	Leu	
		35					40					45				
Pro	Val	Thr	Lys	Met	Lys	Tyr	Ser	Gly	Asn	Leu	Met	Lys	Glu	Lys	Ile	
	50					55					60					
Gln	Glu	Met	Gln	His	Phe	Leu	Gly	Leu	Lys	Val	Thr	Gly	Gln	Leu	Asp	
65				70					75					80		
Thr	Ser	Thr	Leu	Glu	Met	Met	His	Ala	Pro	Arg	Cys	Gly	Val	Pro	Asp	
			85					90					95			
Leu	His	His	Phe	Arg	Glu	Met	Pro	Gly	Gly	Pro	Val	Trp	Arg	Lys	His	
			100					105					110			
Tyr	Ile	Thr	Tyr	Arg	Ile	Asn	Asn	Tyr	Thr	Pro	Asp	Met	Asn	Arg	Glu	
	115					120						125				
Asp	Val	Asp	Tyr	Ala	Ile	Arg	Lys	Ala	Phe	Gln	Val	Trp	Ser	Asn	Val	
	130					135				140						
Thr	Pro	Leu	Lys	Phe	Ser	Lys	Ile	Asn	Thr	Gly	Met	Ala	Asp	Ile	Leu	
145					150					155				160		
Val	Val	Phe	Ala	Arg	Gly	Ala	His	Gly	Asp	Phe	His	Ala	Phe	Asp	Gly	
			165					170					175			
Lys	Gly	Gly	Ile	Leu	Ala	His	Ala	Phe	Gly	Pro	Gly	Ser	Gly	Ile	Gly	
			180					185					190			
Gly	Asp	Ala	His	Phe	Asp	Glu	Asp	Glu	Phe	Trp	Thr	Thr	His	Ser	Gly	
	195						200					205				
Gly	Thr	Asn	Leu	Phe	Leu	Thr	Ala	Val	His	Glu	Ile	Gly	His	Ser	Leu	
	210					215					220					
Gly	Leu	Gly	His	Ser	Ser	Asp	Pro	Lys	Ala	Val	Met	Phe	Pro	Thr	Tyr	
225					230				235						240	
Lys	Tyr	Val	Asp	Ile	Asn	Thr	Phe	Arg	Leu	Ser	Ala	Asp	Asp	Ile	Arg	
			245					250					255			
Gly	Ile	Gln	Ser	Leu	Tyr	Gly	Asp	Pro	Lys	Glu	Asn	Gln	Arg	Leu	Pro	
		260					265					270				
Asn	Pro	Asp	Asn	Ser	Glu	Pro	Ala	Leu	Cys	Asp	Pro	Asn	Leu	Ser	Phe	



<210> 124  
 <211> 2828  
 <212> PRT  
 <213> Homo sapiens

<400> 124

Met	Pro	Lys	Arg	Ala	His	Trp	Gly	Ala	Leu	Ser	Val	Val	Leu	Ile	Leu
1				5					10					15	
Leu	Trp	Gly	His	Pro	Arg	Val	Ala	Leu	Ala	Cys	Pro	His	Pro	Cys	Ala
			20					25					30		
Cys	Tyr	Val	Pro	Ser	Glu	Val	His	Cys	Thr	Phe	Arg	Ser	Leu	Ala	Ser
		35					40					45			
Val	Pro	Ala	Gly	Ile	Ala	Arg	His	Val	Glu	Arg	Ile	Asn	Leu	Gly	Phe
	50					55					60				
Asn	Ser	Ile	Gln	Ala	Leu	Ser	Glu	Thr	Ser	Phe	Ala	Gly	Leu	Thr	Lys
65					70					75					80
Leu	Glu	Leu	Leu	Met	Ile	His	Gly	Asn	Glu	Ile	Pro	Ser	Ile	Pro	Asp
				85					90					95	
Gly	Ala	Leu	Arg	Asp	Leu	Ser	Ser	Leu	Gln	Val	Phe	Lys	Phe	Ser	Tyr
			100					105					110		
Asn	Lys	Leu	Arg	Val	Ile	Thr	Gly	Gln	Thr	Leu	Gln	Gly	Leu	Ser	Asn
		115					120					125			
Leu	Met	Arg	Leu	His	Ile	Asp	His	Asn	Lys	Ile	Glu	Phe	Ile	His	Pro
	130					135					140				
Gln	Ala	Phe	Asn	Gly	Leu	Thr	Ser	Leu	Arg	Leu	Leu	His	Leu	Glu	Gly
145					150					155					160
Asn	Leu	Leu	His	Gln	Leu	His	Pro	Ser	Thr	Phe	Ser	Thr	Phe	Thr	Phe
			165						170					175	
Leu	Asp	Tyr	Phe	Arg	Leu	Ser	Thr	Ile	Arg	His	Leu	Tyr	Leu	Ala	Glu
			180					185					190		
Asn	Met	Val	Arg	Thr	Leu	Pro	Ala	Ser	Met	Leu	Arg	Asn	Met	Pro	Leu
		195					200					205			
Leu	Glu	Asn	Leu	Tyr	Leu	Gln	Gly	Asn	Pro	Trp	Thr	Cys	Asp	Cys	Glu
	210					215					220				
Met	Arg	Trp	Phe	Leu	Glu	Trp	Asp	Ala	Lys	Ser	Arg	Gly	Ile	Leu	Lys
225					230					235					240
Cys	Lys	Lys	Asp	Lys	Ala	Tyr	Glu	Gly	Gly	Gln	Leu	Cys	Ala	Met	Cys
			245						250					255	
Phe	Ser	Pro	Lys	Lys	Leu	Tyr	Lys	His	Glu	Ile	His	Lys	Leu	Lys	Asp
			260					265					270		
Met	Thr	Cys	Leu	Lys	Pro	Ser	Ile	Glu	Ser	Pro	Leu	Arg	Gln	Asn	Arg
		275					280					285			
Ser	Arg	Ser	Ile	Glu	Glu	Glu	Gln	Glu	Gln	Glu	Glu	Asp	Gly	Gly	Ser
	290					295					300				
Gln	Leu	Ile	Leu	Glu	Lys	Phe	Gln	Leu	Pro	Gln	Trp	Ser	Ile	Ser	Leu
305					310					315					320
Asn	Met	Thr	Asp	Glu	His	Gly	Asn	Met	Val	Asn	Leu	Val	Cys	Asp	Ile
			325						330					335	
Lys	Lys	Pro	Met	Asp	Val	Tyr	Lys	Ile	His	Leu	Asn	Gln	Thr	Asp	Pro
			340					345					350		
Pro	Asp	Ile	Asp	Ile	Asn	Ala	Thr	Val	Ala	Leu	Asp	Phe	Glu	Cys	Pro
			355				360					365			
Met	Thr	Arg	Glu	Asn	Tyr	Glu	Lys	Leu	Trp	Lys	Leu	Ile	Ala	Tyr	Tyr
	370					375					380				
Ser	Glu	Val	Pro	Val	Lys	Leu	His	Arg	Glu	Leu	Met	Leu	Ser	Lys	Asp
385					390					395					400
Pro	Arg	Val	Ser	Tyr	Gln	Tyr	Arg	Gln	Asp	Ala	Asp	Glu	Glu	Ala	Leu

				405					410				415				
Tyr	Tyr	Thr	Gly	Val	Arg	Ala	Gln	Ile	Leu	Ala	Glu	Pro	Glu	Trp	Val		
			420					425					430				
Met	Gln	Pro	Ser	Ile	Asp	Ile	Gln	Leu	Asn	Arg	Arg	Gln	Ser	Thr	Ala		
		435					440					445					
Lys	Lys	Val	Leu	Leu	Ser	Tyr	Tyr	Thr	Gln	Tyr	Ser	Gln	Thr	Ile	Ser		
	450					455					460						
Thr	Lys	Asp	Thr	Arg	Gln	Ala	Arg	Gly	Arg	Ser	Trp	Val	Met	Ile	Glu		
465					470					475					480		
Pro	Ser	Gly	Ala	Val	Gln	Arg	Asp	Gln	Thr	Val	Leu	Glu	Gly	Gly	Pro		
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Cys	Gln	Leu	Ser	Cys	Asn	Val	Lys	Ala	Ser	Glu	Ser	Pro	Ser	Ile	Phe		
		500					505					510					
Trp	Val	Leu	Pro	Asp	Gly	Ser	Ile	Leu	Lys	Ala	Pro	Met	Asp	Asp	Pro		
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Asp	Ser	Lys	Phe	Ser	Ile	Leu	Ser	Ser	Gly	Trp	Leu	Arg	Ile	Lys	Ser		
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Met	Glu	Pro	Ser	Asp	Ser	Gly	Leu	Tyr	Gln	Cys	Ile	Ala	Gln	Val	Arg		
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Asp	Glu	Met	Asp	Arg	Met	Val	Tyr	Arg	Val	Leu	Val	Gln	Ser	Pro	Ser		
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Thr	Gln	Pro	Ala	Glu	Lys	Asp	Thr	Val	Thr	Ile	Gly	Lys	Asn	Pro	Gly		
		580					585						590				
Glu	Ser	Val	Thr	Leu	Pro	Cys	Asn	Ala	Leu	Ala	Ile	Pro	Glu	Ala	His		
	595					600						605					
Leu	Ser	Trp	Ile	Leu	Pro	Asn	Arg	Arg	Ile	Ile	Asn	Asp	Leu	Ala	Asn		
	610					615					620						
Thr	Ser	His	Val	Tyr	Met	Leu	Pro	Asn	Gly	Thr	Leu	Ser	Ile	Pro	Lys		
625					630					635					640		
Val	Gln	Val	Ser	Asp	Ser	Gly	Tyr	Tyr	Arg	Cys	Val	Ala	Val	Asn	Gln		
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Gln	Gly	Ala	Asp	His	Phe	Thr	Val	Gly	Ile	Thr	Val	Thr	Lys	Lys	Gly		
		660						665					670				
Ser	Gly	Leu	Pro	Ser	Lys	Arg	Gly	Arg	Arg	Pro	Gly	Ala	Lys	Ala	Leu		
	675						680				685						
Ser	Arg	Val	Arg	Glu	Asp	Ile	Val	Glu	Asp	Glu	Gly	Gly	Ser	Gly	Met		
	690					695				700							
Gly	Asp	Glu	Glu	Asn	Thr	Ser	Arg	Arg	Leu	Leu	His	Pro	Lys	Asp	Gln		
705					710					715					720		
Glu	Val	Phe	Leu	Lys	Thr	Lys	Asp	Asp	Ala	Ile	Asn	Gly	Asp	Lys	Lys		
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Ala	Lys	Lys	Gly	Arg	Arg	Lys	Leu	Lys	Leu	Trp	Lys	His	Ser	Glu	Lys		
		740						745					750				
Glu	Pro	Glu	Thr	Asn	Val	Ala	Glu	Gly	Arg	Arg	Val	Phe	Glu	Ser	Arg		
	755						760					765					
Arg	Arg	Ile	Asn	Met	Ala	Asn	Lys	Gln	Ile	Asn	Pro	Glu	Arg	Trp	Ala		
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Asp	Ile	Leu	Ala	Lys	Val	Arg	Gly	Lys	Asn	Leu	Pro	Lys	Gly	Thr	Glu		
785					790					795					800		
Val	Pro	Pro	Leu	Ile	Lys	Thr	Thr	Ser	Pro	Pro	Ser	Leu	Ser	Leu	Glu		
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Val	Thr	Pro	Pro	Phe	Pro	Ala	Val	Ser	Pro	Pro	Ser	Ala	Ser	Pro	Val		
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Gln	Thr	Val	Thr	Ser	Ala	Glu	Glu	Ser	Ser	Ala	Asp	Val	Pro	Leu	Leu		
	835						840				845						
Gly	Glu	Glu	Glu	His	Val	Leu	Gly	Thr	Ile	Ser	Ser	Ala	Ser	Met	Gly		
	850					855					860						

Leu	Glu	His	Asn	His	Asn	Gly	Val	Ile	Leu	Val	Glu	Pro	Glu	Val	Thr	865	870	875	880
Ser	Thr	Pro	Leu	Glu	Glu	Val	Val	Asp	Asp	Leu	Ser	Glu	Lys	Thr	Glu	885	890	895	
Glu	Ile	Thr	Ser	Thr	Glu	Gly	Asp	Leu	Lys	Gly	Thr	Ala	Ala	Pro	Thr	900	905	910	
Leu	Ile	Ser	Glu	Pro	Tyr	Glu	Pro	Ser	Pro	Thr	Leu	His	Thr	Leu	Asp	915	920	925	
Thr	Val	Tyr	Glu	Lys	Pro	Thr	His	Glu	Glu	Thr	Ala	Thr	Glu	Gly	Trp	930	935	940	
Ser	Ala	Ala	Asp	Val	Gly	Ser	Ser	Pro	Glu	Pro	Thr	Ser	Ser	Glu	Tyr	945	950	955	960
Glu	Pro	Pro	Leu	Asp	Ala	Val	Ser	Leu	Ala	Glu	Ser	Glu	Pro	Met	Gln	965	970	975	
Tyr	Phe	Asp	Pro	Asp	Leu	Glu	Thr	Lys	Ser	Gln	Pro	Asp	Glu	Asp	Lys	980	985	990	
Met	Lys	Glu	Asp	Thr	Phe	Ala	His	Leu	Thr	Pro	Thr	Pro	Thr	Ile	Trp	995	1000	1005	
Val	Asn	Asp	Ser	Ser	Thr	Ser	Gln	Leu	Phe	Glu	Asp	Ser	Thr	Ile	Gly	1010	1015	1020	
Glu	Pro	Gly	Val	Pro	Gly	Gln	Ser	His	Leu	Gln	Gly	Leu	Thr	Asp	Asn	1025	1030	1035	1040
Ile	His	Leu	Val	Lys	Ser	Ser	Leu	Ser	Thr	Gln	Asp	Thr	Leu	Leu	Ile	1045	1050	1055	
Lys	Lys	Gly	Met	Lys	Glu	Met	Ser	Gln	Thr	Leu	Gln	Gly	Gly	Asn	Met	1060	1065	1070	
Leu	Glu	Gly	Asp	Pro	Thr	His	Ser	Arg	Ser	Ser	Glu	Ser	Glu	Gly	Gln	1075	1080	1085	
Glu	Ser	Lys	Ser	Ile	Thr	Leu	Pro	Asp	Ser	Thr	Leu	Gly	Ile	Met	Ser	1090	1095	1100	
Ser	Met	Ser	Pro	Val	Lys	Lys	Pro	Ala	Glu	Thr	Thr	Val	Gly	Thr	Leu	1105	1110	1115	1120
Leu	Asp	Lys	Asp	Thr	Thr	Thr	Val	Thr	Thr	Thr	Pro	Arg	Gln	Lys	Val	1125	1130	1135	
Ala	Pro	Ser	Ser	Thr	Met	Ser	Thr	His	Pro	Ser	Arg	Arg	Arg	Pro	Asn	1140	1145	1150	
Gly	Arg	Arg	Arg	Leu	Arg	Pro	Asn	Lys	Phe	Arg	His	Arg	His	Lys	Gln	1155	1160	1165	
Thr	Pro	Pro	Thr	Thr	Phe	Ala	Pro	Ser	Glu	Thr	Phe	Ser	Thr	Gln	Pro	1170	1175	1180	
Thr	Gln	Ala	Pro	Asp	Ile	Lys	Ile	Ser	Ser	Gln	Val	Glu	Ser	Ser	Leu	1185	1190	1195	1200
Val	Pro	Thr	Ala	Trp	Val	Asp	Asn	Thr	Val	Asn	Thr	Pro	Lys	Gln	Leu	1205	1210	1215	
Glu	Met	Glu	Lys	Asn	Ala	Glu	Pro	Thr	Ser	Lys	Gly	Thr	Pro	Arg	Arg	1220	1225	1230	
Lys	His	Gly	Lys	Arg	Pro	Asn	Lys	His	Arg	Tyr	Thr	Pro	Ser	Thr	Val	1235	1240	1245	
Ser	Ser	Arg	Ala	Ser	Gly	Ser	Lys	Pro	Ser	Pro	Ser	Pro	Glu	Asn	Lys	1250	1255	1260	
His	Arg	Asn	Ile	Val	Thr	Pro	Ser	Ser	Glu	Thr	Ile	Leu	Leu	Pro	Arg	1265	1270	1275	1280
Thr	Val	Ser	Leu	Lys	Thr	Glu	Gly	Pro	Tyr	Asp	Ser	Leu	Asp	Tyr	Met	1285	1290	1295	
Thr	Thr	Thr	Arg	Lys	Ile	Tyr	Ser	Ser	Tyr	Pro	Lys	Val	Gln	Glu	Thr	1300	1305	1310	
Leu	Pro	Val	Thr	Tyr	Lys	Pro	Thr	Ser	Asp	Gly	Lys	Glu	Ile	Lys	Asp				

	1315		1320		1325										
Asp	Val	Ala	Thr	Asn	Val	Asp	Lys	His	Lys	Ser	Asp	Ile	Leu	Val	Thr
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Gly	Glu	Ser	Ile	Thr	Asn	Ala	Ile	Pro	Thr	Ser	Arg	Ser	Leu	Val	Ser
1345					1350					1355					1360
Thr	Met	Gly	Glu	Phe	Lys	Glu	Glu	Ser	Ser	Pro	Val	Gly	Phe	Pro	Gly
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Thr	Pro	Thr	Trp	Asn	Pro	Ser	Arg	Thr	Ala	Gln	Pro	Gly	Arg	Leu	Gln
			1380						1385				1390		
Thr	Asp	Ile	Pro	Val	Thr	Thr	Ser	Gly	Glu	Asn	Leu	Thr	Asp	Pro	Pro
	1395						1400					1405			
Leu	Leu	Lys	Glu	Leu	Glu	Asp	Val	Asp	Phe	Thr	Ser	Glu	Phe	Leu	Ser
	1410					1415					1420				
Ser	Leu	Thr	Val	Ser	Thr	Pro	Phe	His	Gln	Glu	Glu	Ala	Gly	Ser	Ser
1425					1430					1435					1440
Thr	Thr	Leu	Ser	Ser	Ile	Lys	Val	Glu	Val	Ala	Ser	Ser	Gln	Ala	Glu
				1445					1450					1455	
Thr	Thr	Thr	Leu	Asp	Gln	Asp	His	Leu	Glu	Thr	Thr	Val	Ala	Ile	Leu
			1460					1465					1470		
Leu	Ser	Glu	Thr	Arg	Pro	Gln	Asn	His	Thr	Pro	Thr	Ala	Ala	Arg	Met
	1475					1480						1485			
Lys	Glu	Pro	Ala	Ser	Ser	Ser	Pro	Ser	Thr	Ile	Leu	Met	Ser	Leu	Gly
	1490					1495				1500					
Gln	Thr	Thr	Thr	Thr	Lys	Pro	Ala	Leu	Pro	Ser	Pro	Arg	Ile	Ser	Gln
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Ala	Ser	Arg	Asp	Ser	Lys	Glu	Asn	Val	Phe	Leu	Asn	Tyr	Val	Gly	Asn
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Pro	Glu	Thr	Glu	Ala	Thr	Pro	Val	Asn	Asn	Glu	Gly	Thr	Gln	His	Met
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Ser	Gly	Pro	Asn	Glu	Leu	Ser	Thr	Pro	Ser	Ser	Asp	Arg	Asp	Ala	Phe
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Asn	Leu	Ser	Thr	Lys	Leu	Glu	Leu	Glu	Lys	Gln	Val	Phe	Gly	Ser	Arg
	1570				1575					1580					
Ser	Leu	Pro	Arg	Gly	Pro	Asp	Ser	Gln	Arg	Gln	Asp	Gly	Arg	Val	His
1585					1590					1595					1600
Ala	Ser	His	Gln	Leu	Thr	Arg	Val	Pro	Ala	Lys	Pro	Ile	Leu	Pro	Thr
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Ala	Thr	Val	Arg	Leu	Pro	Glu	Met	Ser	Thr	Gln	Ser	Ala	Ser	Arg	Tyr
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Phe	Val	Thr	Ser	Gln	Ser	Pro	Arg	His	Trp	Thr	Asn	Lys	Pro	Glu	Ile
	1635					1640						1645			
Thr	Thr	Tyr	Pro	Ser	Gly	Ala	Leu	Pro	Glu	Asn	Lys	Gln	Phe	Thr	Thr
	1650				1655						1660				
Pro	Arg	Leu	Ser	Ser	Thr	Thr	Ile	Pro	Leu	Pro	Leu	His	Met	Ser	Lys
1665					1670				1675						1680
Pro	Ser	Ile	Pro	Ser	Lys	Phe	Thr	Asp	Arg	Arg	Thr	Asp	Gln	Phe	Asn
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Gly	Tyr	Ser	Lys	Val	Phe	Gly	Asn	Asn	Asn	Ile	Pro	Glu	Ala	Arg	Asn
	1700						1705					1710			
Pro	Val	Gly	Lys	Pro	Pro	Ser	Pro	Arg	Ile	Pro	His	Tyr	Ser	Asn	Gly
	1715					1720					1725				
Arg	Leu	Pro	Phe	Phe	Thr	Asn	Lys	Thr	Leu	Ser	Phe	Pro	Gln	Leu	Gly
	1730				1735				1740						
Val	Thr	Arg	Arg	Pro	Gln	Ile	Pro	Thr	Ser	Pro	Ala	Pro	Val	Met	Arg
1745					1750				1755						1760
Glu	Arg	Lys	Val	Ile	Pro	Gly	Ser	Tyr	Asn	Arg	Ile	His	Ser	His	Ser
			1765					1770					1775		

Thr	Phe	His	Leu	Asp	Phe	Gly	Pro	Pro	Ala	Pro	Pro	Leu	Leu	His	Thr	1780	1785	1790
Pro	Gln	Thr	Thr	Gly	Ser	Pro	Ser	Thr	Asn	Leu	Gln	Asn	Ile	Pro	Met	1795	1800	1805
Val	Ser	Ser	Thr	Gln	Ser	Ser	Ile	Ser	Phe	Ile	Thr	Ser	Ser	Val	Gln	1810	1815	1820
Ser	Ser	Gly	Ser	Phe	His	Gln	Ser	Ser	Ser	Lys	Phe	Phe	Ala	Gly	Gly	1825	1830	1835
Pro	Pro	Ala	Ser	Lys	Phe	Trp	Ser	Leu	Gly	Glu	Lys	Pro	Gln	Ile	Leu	1845	1850	1855
Thr	Lys	Ser	Pro	Gln	Thr	Val	Ser	Val	Thr	Ala	Glu	Thr	Asp	Thr	Val	1860	1865	1870
Phe	Pro	Cys	Glu	Ala	Thr	Gly	Lys	Pro	Lys	Pro	Phe	Val	Thr	Trp	Thr	1875	1880	1885
Lys	Val	Ser	Thr	Gly	Ala	Leu	Met	Thr	Pro	Asn	Thr	Arg	Ile	Gln	Arg	1890	1895	1900
Phe	Glu	Val	Leu	Lys	Asn	Gly	Thr	Leu	Val	Ile	Arg	Lys	Val	Gln	Val	1905	1910	1915
Gln	Asp	Arg	Gly	Gln	Tyr	Met	Cys	Thr	Ala	Ser	Asn	Leu	His	Gly	Leu	1925	1930	1935
Asp	Arg	Met	Val	Val	Leu	Leu	Ser	Val	Thr	Val	Gln	Gln	Pro	Gln	Ile	1940	1945	1950
Leu	Ala	Ser	His	Tyr	Gln	Asp	Val	Thr	Val	Tyr	Leu	Gly	Asp	Thr	Ile	1955	1960	1965
Ala	Met	Glu	Cys	Leu	Ala	Lys	Gly	Thr	Pro	Ala	Pro	Gln	Ile	Ser	Trp	1970	1975	1980
Ile	Phe	Pro	Asp	Arg	Arg	Val	Trp	Gln	Thr	Val	Ser	Pro	Val	Glu	Ser	1985	1990	1995
Arg	Ile	Thr	Leu	His	Glu	Asn	Arg	Thr	Leu	Ser	Ile	Lys	Glu	Ala	Ser	2005	2010	2015
Phe	Ser	Asp	Arg	Gly	Val	Tyr	Lys	Cys	Val	Ala	Ser	Asn	Ala	Ala	Gly	2020	2025	2030
Ala	Asp	Ser	Leu	Ala	Ile	Arg	Leu	His	Val	Ala	Ala	Leu	Pro	Pro	Val	2035	2040	2045
Ile	His	Gln	Glu	Lys	Leu	Glu	Asn	Ile	Ser	Leu	Pro	Pro	Gly	Leu	Ser	2050	2055	2060
Ile	His	Ile	His	Cys	Thr	Ala	Lys	Ala	Ala	Pro	Leu	Pro	Ser	Val	Arg	2065	2070	2075
Trp	Val	Leu	Gly	Asp	Gly	Thr	Gln	Ile	Arg	Pro	Ser	Gln	Phe	Leu	His	2085	2090	2095
Gly	Asn	Leu	Phe	Val	Phe	Pro	Asn	Gly	Thr	Leu	Tyr	Ile	Arg	Asn	Leu	2100	2105	2110
Ala	Pro	Lys	Asp	Ser	Gly	Arg	Tyr	Glu	Cys	Val	Ala	Ala	Asn	Leu	Val	2115	2120	2125
Gly	Ser	Ala	Arg	Arg	Thr	Val	Gln	Leu	Asn	Val	Gln	Arg	Ala	Ala	Ala	2130	2135	2140
Asn	Ala	Arg	Ile	Thr	Gly	Thr	Ser	Pro	Arg	Arg	Thr	Asp	Val	Arg	Tyr	2145	2150	2155
Gly	Gly	Thr	Leu	Lys	Leu	Asp	Cys	Ser	Ala	Ser	Gly	Asp	Pro	Trp	Pro	2165	2170	2175
Arg	Ile	Leu	Trp	Arg	Leu	Pro	Ser	Lys	Arg	Met	Ile	Asp	Ala	Leu	Phe	2180	2185	2190
Ser	Phe	Asp	Ser	Arg	Ile	Lys	Val	Phe	Ala	Asn	Gly	Thr	Leu	Val	Val	2195	2200	2205
Lys	Ser	Val	Thr	Asp	Lys	Asp	Ala	Gly	Asp	Tyr	Leu	Cys	Val	Ala	Arg	2210	2215	2220
Asn	Lys	Val	Gly	Asp	Asp	Tyr	Val	Val	Leu	Lys	Val	Asp	Val	Val	Met			

2225		2230		2235		2240
Lys Pro Ala Lys	Ile Glu His Lys Glu Glu Asn Asp His Lys Val Phe					
	2245		2250		2255	
Tyr Gly Gly Asp	Leu Lys Val Asp Cys Val Ala Thr Gly Leu Pro Asn					
	2260		2265		2270	
Pro Glu Ile Ser Trp Ser	Leu Pro Asp Gly Ser Leu Val Asn Ser Phe					
	2275		2280		2285	
Met Gln Ser Asp Asp Ser	Gly Gly Arg Thr Lys Arg Tyr Val Val Phe					
	2290		2295		2300	
Asn Asn Gly Thr Leu Tyr Phe	Asn Glu Val Gly Met Arg Glu Glu Gly					
2305	2310		2315		2320	
Asp Tyr Thr Cys Phe Ala Glu	Asn Gln Val Gly Lys Asp Glu Met Arg					
	2325		2330		2335	
Val Arg Val Lys Val Val Thr	Ala Pro Ala Thr Ile Arg Asn Lys Thr					
	2340		2345		2350	
Tyr Leu Ala Val Gln Val Pro	Tyr Gly Asp Val Val Thr Val Ala Cys					
	2355		2360		2365	
Glu Ala Lys Gly Glu Pro Met	Pro Lys Val Thr Trp Leu Ser Pro Thr					
	2370		2375		2380	
Asn Lys Val Ile Pro Thr Ser	Ser Glu Lys Tyr Gln Ile Tyr Gln Asp					
2385	2390		2395		2400	
Gly Thr Leu Leu Ile Gln Lys	Ala Gln Arg Ser Asp Ser Gly Asn Tyr					
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Thr Cys Leu Val Arg Asn Ser	Ala Gly Glu Asp Arg Lys Thr Val Trp					
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Ile His Val Asn Val Gln Pro	Pro Lys Ile Asn Gly Asn Pro Asn Pro					
	2435		2440		2445	
Ile Thr Thr Val Arg Glu Ile	Ala Ala Gly Gly Ser Arg Lys Leu Ile					
	2450		2455		2460	
Asp Cys Lys Ala Glu Gly Ile	Pro Thr Pro Arg Val Leu Trp Ala Phe					
2465	2470		2475		2480	
Pro Glu Gly Val Val Leu Pro	Ala Pro Tyr Tyr Gly Asn Arg Ile Thr					
	2485		2490		2495	
Val His Gly Asn Gly Ser Leu	Asp Ile Arg Ser Leu Arg Lys Ser Asp					
	2500		2505		2510	
Ser Val Gln Leu Val Cys Met	Ala Arg Asn Glu Gly Gly Glu Ala Arg					
	2515		2520		2525	
Leu Ile Val Gln Leu Thr Val	Leu Glu Pro Met Glu Lys Pro Ile Phe					
	2530		2535		2540	
His Asp Pro Ile Ser Glu Lys	Ile Thr Ala Met Ala Gly His Thr Ile					
2545	2550		2555		2560	
Ser Leu Asn Cys Ser Ala Ala	Gly Thr Pro Thr Pro Ser Leu Val Trp					
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Val Leu Pro Asn Gly Thr Asp	Leu Gln Ser Gly Gln Gln Leu Gln Arg					
	2580		2585		2590	
Phe Tyr His Lys Ala Asp Gly	Met Leu His Ile Ser Gly Leu Ser Ser					
	2595		2600		2605	
Val Asp Ala Gly Ala Tyr Arg	Cys Val Ala Arg Asn Ala Ala Gly His					
	2610		2615		2620	
Thr Glu Arg Leu Val Ser Leu	Lys Val Gly Leu Lys Pro Glu Ala Asn					
2625	2630		2635		2640	
Lys Gln Tyr His Asn Leu Val	Ser Ile Ile Asn Gly Glu Thr Leu Lys					
	2645		2650		2655	
Leu Pro Cys Thr Pro Pro Gly	Ala Gly Gln Gly Arg Phe Ser Trp Thr					
	2660		2665		2670	
Leu Pro Asn Gly Met His Leu	Glu Gly Pro Gln Thr Leu Gly Arg Val					
	2675		2680		2685	



Ser Leu Leu Asp Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe  
 2690 2695 2700  
 Asp Arg Gly Thr Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser  
 2705 2710 2715 2720  
 Val Thr Ser Ile Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr  
 2725 2730 2735  
 Ser Glu Pro Thr Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys  
 2740 2745 2750  
 Leu Asn Cys Met Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu  
 2755 2760 2765  
 Leu Pro Asp Lys Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr  
 2770 2775 2780  
 Gly Asn Arg Phe Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala  
 2785 2790 2795 2800  
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 Gly Ser Asp Ser Lys Thr Thr Tyr Ile His Val Phe  
 2820 2825

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 <212> PRT  
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Met Phe Ser Phe Val Asp Leu Arg Leu Leu Leu Leu Leu Ala Ala Thr  
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 Ala Leu Leu Thr His Gly Gln Glu Glu Gly Gln Val Glu Gly Gln Asp  
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 Glu Asp Ile Pro Pro Ile Thr Cys Val Gln Asn Gly Leu Arg Tyr His  
 35 40 45  
 Asp Arg Asp Val Trp Lys Pro Glu Pro Cys Arg Ile Cys Val Cys Asp  
 50 55 60  
 Asn Gly Lys Val Leu Cys Asp Asp Val Ile Cys Asp Glu Thr Lys Asn  
 65 70 75 80  
 Cys Pro Gly Ala Glu Val Pro Glu Gly Glu Cys Cys Pro Val Cys Pro  
 85 90 95  
 Asp Gly Ser Glu Ser Pro Thr Asp Gln Glu Thr Thr Gly Val Glu Gly  
 100 105 110  
 Pro Lys Gly Asp Thr Gly Pro Arg Gly Pro Arg Gly Pro Ala Gly Pro  
 115 120 125  
 Pro Gly Arg Asp Gly Ile Pro Gly Gln Pro Gly Leu Pro Gly Pro Pro  
 130 135 140  
 Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Leu Gly Gly Asn Phe Ala  
 145 150 155 160  
 Pro Gln Leu Ser Tyr Gly Tyr Asp Glu Lys Ser Thr Gly Gly Ile Ser  
 165 170 175  
 Val Pro Gly Pro Met Gly Pro Ser Gly Pro Arg Gly Leu Pro Gly Pro  
 180 185 190  
 Pro Gly Ala Pro Gly Pro Gln Gly Phe Gln Gly Pro Pro Gly Glu Pro  
 195 200 205  
 Gly Glu Pro Gly Ala Ser Gly Pro Met Gly Pro Arg Gly Pro Pro Gly  
 210 215 220  
 Pro Pro Gly Lys Asn Gly Asp Asp Gly Glu Ala Gly Lys Pro Gly Arg  
 225 230 235 240  
 Pro Gly Glu Arg Gly Pro Pro Gly Pro Gln Gly Ala Arg Gly Leu Pro

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Gly	Thr	Ala	Gly	Leu	Pro	Gly	Met	Lys	Gly	His	Arg	Gly	Phe	Ser	Gly		
			260					265					270				
Leu	Asp	Gly	Ala	Lys	Gly	Asp	Ala	Gly	Pro	Ala	Gly	Pro	Lys	Gly	Glu		
		275					280					285					
Pro	Gly	Ser	Pro	Gly	Glu	Asn	Gly	Ala	Pro	Gly	Gln	Met	Gly	Pro	Arg		
	290					295					300						
Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg	Pro	Gly	Ala	Pro	Gly	Pro	Ala	Gly		
305					310					315					320		
Ala	Arg	Gly	Asn	Asp	Gly	Ala	Thr	Gly	Ala	Ala	Gly	Pro	Pro	Gly	Pro		
			325					330						335			
Thr	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Phe	Pro	Gly	Ala	Val	Gly	Ala	Lys		
			340					345					350				
Gly	Glu	Ala	Gly	Pro	Gln	Gly	Pro	Arg	Gly	Ser	Glu	Gly	Pro	Gln	Gly		
		355				360					365						
Val	Arg	Gly	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ala	Ala	Gly	Pro		
	370				375					380							
Ala	Gly	Asn	Pro	Gly	Ala	Asp	Gly	Gln	Pro	Gly	Ala	Lys	Gly	Ala	Asn		
385				390				395							400		
Gly	Ala	Pro	Gly	Ile	Ala	Gly	Ala	Pro	Gly	Phe	Pro	Gly	Ala	Arg	Gly		
			405					410					415				
Pro	Ser	Gly	Pro	Gln	Gly	Pro	Gly	Gly	Pro	Pro	Gly	Pro	Lys	Gly	Asn		
		420					425					430					
Ser	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Ser	Lys	Gly	Asp	Thr	Gly	Ala	Lys		
	435					440					445						
Gly	Glu	Pro	Gly	Pro	Val	Gly	Val	Gln	Gly	Pro	Pro	Gly	Pro	Ala	Gly		
	450				455			460									
Glu	Glu	Gly	Lys	Arg	Gly	Ala	Arg	Gly	Glu	Pro	Gly	Pro	Thr	Gly	Leu		
465				470				475							480		
Pro	Gly	Pro	Pro	Gly	Glu	Arg	Gly	Gly	Pro	Gly	Ser	Arg	Gly	Phe	Pro		
			485					490					495				
Gly	Ala	Asp	Gly	Val	Ala	Gly	Pro	Lys	Gly	Pro	Ala	Gly	Glu	Arg	Gly		
		500						505				510					
Ser	Pro	Gly	Pro	Ala	Gly	Pro	Lys	Gly	Ser	Pro	Gly	Glu	Ala	Gly	Arg		
	515					520					525						
Pro	Gly	Glu	Ala	Gly	Leu	Pro	Gly	Ala	Lys	Gly	Leu	Thr	Gly	Ser	Pro		
	530				535			540									
Gly	Ser	Pro	Gly	Pro	Asp	Gly	Lys	Thr	Gly	Pro	Pro	Gly	Pro	Ala	Gly		
545				550				555							560		
Gln	Asp	Gly	Arg	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ala	Arg	Gly	Gln		
			565					570				575					
Ala	Gly	Val	Met	Gly	Phe	Pro	Gly	Pro	Lys	Gly	Ala	Ala	Gly	Glu	Pro		
		580						585				590					
Gly	Lys	Ala	Gly	Glu	Arg	Gly	Val	Pro	Gly	Pro	Pro	Gly	Ala	Val	Gly		
	595					600					605						
Pro	Ala	Gly	Lys	Asp	Gly	Glu	Ala	Gly	Ala	Gln	Gly	Pro	Pro	Gly	Pro		
	610				615			620									
Ala	Gly	Pro	Ala	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Pro	Ala	Gly	Ser	Pro		
625				630				635							640		
Gly	Phe	Gln	Gly	Leu	Pro	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Glu	Ala	Gly		
			645					650				655					
Lys	Pro	Gly	Glu	Gln	Gly	Val	Pro	Gly	Asp	Leu	Gly	Ala	Pro	Gly	Pro		
		660						665				670					
Ser	Gly	Ala	Arg	Gly	Glu	Arg	Gly	Phe	Pro	Gly	Glu	Arg	Gly	Val	Gln		
	675						680				685						
Gly	Pro	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Ala	Asn	Gly	Ala	Pro	Gly		
	690				695			700									

Asn	Asp	Gly	Ala	Lys	Gly	Asp	Ala	Gly	Ala	Pro	Gly	Ala	Pro	Gly	Ser	705	710	715	720
Gln	Gly	Ala	Pro	Gly	Leu	Gln	Gly	Met	Pro	Gly	Glu	Arg	Gly	Ala	Ala	725	730	735	
Gly	Leu	Pro	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Asp	Ala	Gly	Pro	Lys	Gly	740	745	750	
Ala	Asp	Gly	Ser	Pro	Gly	Lys	Asp	Gly	Val	Arg	Gly	Leu	Thr	Gly	Pro	755	760	765	
Ile	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ala	Pro	Gly	Asp	Lys	Gly	Glu	Ser	770	775	780	
Gly	Pro	Ser	Gly	Pro	Ala	Gly	Pro	Thr	Gly	Ala	Arg	Gly	Ala	Pro	Gly	785	790	795	800
Asp	Arg	Gly	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Phe	Ala	Gly	Pro	805	810	815	
Pro	Gly	Ala	Asp	Gly	Gln	Pro	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Asp	Ala	820	825	830	
Gly	Ala	Lys	Gly	Asp	Ala	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Pro	Ala	Gly	835	840	845	
Pro	Pro	Gly	Pro	Ile	Gly	Asn	Val	Gly	Ala	Pro	Gly	Ala	Lys	Gly	Ala	850	855	860	
Arg	Gly	Ser	Ala	Gly	Pro	Pro	Gly	Ala	Thr	Gly	Phe	Pro	Gly	Ala	Ala	865	870	875	880
Gly	Arg	Val	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Asn	Ala	Gly	Pro	Pro	Gly	885	890	895	
Pro	Pro	Gly	Pro	Ala	Gly	Lys	Glu	Gly	Lys	Gly	Pro	Arg	Gly	Glu		900	905	910	
Thr	Gly	Pro	Ala	Gly	Arg	Pro	Gly	Glu	Val	Gly	Pro	Pro	Gly	Pro	Pro	915	920	925	
Gly	Pro	Ala	Gly	Glu	Lys	Gly	Ser	Pro	Gly	Ala	Asp	Gly	Pro	Ala	Gly	930	935	940	
Ala	Pro	Gly	Thr	Pro	Gly	Pro	Gln	Gly	Ile	Ala	Gly	Gln	Arg	Gly	Val	945	950	955	960
Val	Gly	Leu	Pro	Gly	Gln	Arg	Gly	Glu	Arg	Gly	Phe	Pro	Gly	Leu	Pro	965	970	975	
Gly	Pro	Ser	Gly	Glu	Pro	Gly	Lys	Gln	Gly	Pro	Ser	Gly	Ala	Ser	Gly	980	985	990	
Glu	Arg	Gly	Pro	Pro	Gly	Pro	Met	Gly	Pro	Pro	Gly	Leu	Ala	Gly	Pro	995	1000	1005	
Pro	Gly	Glu	Ser	Gly	Arg	Glu	Gly	Ala	Pro	Ala	Ala	Glu	Gly	Ser	Pro	1010	1015	1020	
Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Lys	Gly	Asp	Arg	Gly	Glu	Thr	Gly	1025	1030	1035	1040
Pro	Ala	Gly	Pro	Pro	Gly	Ala	Pro	Gly	Ala	Pro	Gly	Ala	Pro	Gly	Pro	1045	1050	1055	
Val	Gly	Pro	Ala	Gly	Lys	Ser	Gly	Asp	Arg	Gly	Glu	Thr	Gly	Pro	Ala	1060	1065	1070	
Gly	Pro	Ala	Gly	Pro	Val	Gly	Pro	Val	Gly	Ala	Arg	Gly	Pro	Ala	Gly	1075	1080	1085	
Pro	Gln	Gly	Pro	Arg	Gly	Asp	Lys	Gly	Glu	Thr	Gly	Glu	Gln	Gly	Asp	1090	1095	1100	
Arg	Gly	Ile	Lys	Gly	His	Arg	Gly	Phe	Ser	Gly	Leu	Gln	Gly	Pro	Pro	1105	1110	1115	1120
Gly	Pro	Pro	Gly	Ser	Pro	Gly	Glu	Gln	Gly	Pro	Ser	Gly	Ala	Ser	Gly	1125	1130	1135	
Pro	Ala	Gly	Pro	Arg	Gly	Pro	Pro	Gly	Ser	Ala	Gly	Ala	Pro	Gly	Lys	1140	1145	1150	
Asp	Gly	Leu	Asn	Gly	Leu	Pro	Gly	Pro	Ile	Gly	Pro	Pro	Gly	Pro	Arg				

1155					1160					1165						
Gly	Arg	Thr	Gly	Asp	Ala	Gly	Pro	Val	Gly	Pro	Pro	Gly	Pro	Pro	Gly	
1170					1175					1180						
Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Ser	Ala	Gly	Phe	Asp	Phe	Ser	Phe	
1185					1190					1195					1200	
Leu	Pro	Gln	Pro	Pro	Gln	Glu	Lys	Ala	His	Asp	Gly	Gly	Arg	Tyr	Tyr	
1205					1210					1215						
Arg	Ala	Asp	Asp	Ala	Asn	Val	Val	Arg	Asp	Arg	Asp	Leu	Glu	Val	Asp	
1220					1225					1230						
Thr	Thr	Leu	Lys	Ser	Leu	Ser	Gln	Gln	Ile	Glu	Asn	Ile	Arg	Ser	Pro	
1235					1240					1245						
Glu	Gly	Ser	Arg	Lys	Asn	Pro	Ala	Arg	Thr	Cys	Arg	Asp	Leu	Lys	Met	
1250					1255					1260						
Cys	His	Ser	Asp	Trp	Lys	Ser	Gly	Glu	Tyr	Trp	Ile	Asp	Pro	Asn	Gln	
1265					1270					1275					1280	
Gly	Cys	Asn	Leu	Asp	Ala	Ile	Lys	Val	Phe	Cys	Asn	Met	Glu	Thr	Gly	
1285					1290					1295						
Glu	Thr	Cys	Val	Tyr	Pro	Thr	Gln	Pro	Ser	Val	Ala	Gln	Lys	Asn	Trp	
1300					1305					1310						
Tyr	Ile	Ser	Lys	Asn	Pro	Lys	Asp	Lys	Arg	His	Val	Trp	Phe	Gly	Glu	
1315					1320					1325						
Ser	Met	Thr	Asp	Gly	Phe	Gln	Phe	Glu	Tyr	Gly	Gly	Gln	Gly	Ser	Asp	
1330					1335					1340						
Pro	Ala	Asp	Val	Ala	Ile	Gln	Leu	Thr	Phe	Leu	Arg	Leu	Met	Ser	Thr	
1345					1350					1355					1360	
Glu	Ala	Ser	Gln	Asn	Ile	Thr	Tyr	His	Cys	Lys	Asn	Ser	Val	Ala	Tyr	
1365					1370					1375						
Met	Asp	Gln	Gln	Thr	Gly	Asn	Leu	Lys	Lys	Ala	Leu	Leu	Leu	Lys	Gly	
1380					1385					1390						
Ser	Asn	Glu	Ile	Glu	Ile	Arg	Ala	Glu	Gly	Asn	Ser	Arg	Phe	Thr	Tyr	
1395					1400					1405						
Ser	Val	Thr	Val	Asp	Gly	Cys	Thr	Ser	His	Thr	Gly	Ala	Trp	Gly	Lys	
1410					1415					1420						
Thr	Val	Ile	Glu	Tyr	Lys	Thr	Thr	Lys	Ser	Ser	Arg	Leu	Pro	Ile	Ile	
1425					1430					1435					1440	
Asp	Val	Ala	Pro	Leu	Asp	Val	Gly	Ala	Pro	Asp	Gln	Glu	Phe	Gly	Phe	
1445					1450					1455						
Asp	Val	Gly	Pro	Val	Cys	Phe	Leu									
1460																

<210> 126  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 126

Met	Pro	Gly	Gln	Glu	Leu	Arg	Thr	Val	Asn	Gly	Ser	Gln	Met	Leu	Leu
1				5					10					15	
Val	Leu	Leu	Val	Leu	Ser	Trp	Leu	Pro	His	Gly	Gly	Ala	Leu	Ser	Leu
			20					25					30		
Ala	Glu	Ala	Ser	Arg	Ala	Ser	Phe	Pro	Gly	Pro	Ser	Glu	Leu	His	Ser
			35				40					45			
Glu	Asp	Ser	Arg	Phe	Arg	Glu	Leu	Arg	Lys	Arg	Tyr	Glu	Asp	Leu	Leu
	50					55				60					
Thr	Arg	Leu	Arg	Ala	Asn	Gln	Ser	Trp	Glu	Asp	Ser	Asn	Thr	Asp	Leu
65					70				75					80	

Val	Pro	Ala	Pro	Ala	Val	Arg	Ile	Leu	Thr	Pro	Glu	Val	Arg	Leu	Gly
				85					90					95	
Ser	Gly	Gly	His	Leu	His	Leu	Arg	Ile	Ser	Arg	Ala	Ala	Leu	Pro	Glu
			100					105					110		
Gly	Leu	Pro	Glu	Ala	Ser	Arg	Leu	His	Arg	Ala	Leu	Phe	Arg	Leu	Ser
		115					120					125			
Pro	Thr	Ala	Ser	Arg	Ser	Trp	Asp	Val	Thr	Arg	Pro	Leu	Arg	Arg	Gln
	130					135					140				
Leu	Ser	Leu	Ala	Arg	Pro	Gln	Ala	Pro	Ala	Leu	His	Leu	Arg	Leu	Ser
145					150					155					160
Pro	Pro	Pro	Ser	Gln	Ser	Asp	Gln	Leu	Leu	Ala	Glu	Ser	Ser	Ser	Ala
				165						170					175
Arg	Pro	Gln	Leu	Glu	Leu	His	Leu	Arg	Pro	Gln	Ala	Ala	Arg	Gly	Arg
			180					185					190		
Arg	Arg	Ala	Arg	Ala	Arg	Asn	Gly	Asp	Asp	Cys	Pro	Leu	Gly	Pro	Gly
		195					200					205			
Arg	Cys	Cys	Arg	Leu	His	Thr	Val	Arg	Ala	Ser	Leu	Glu	Asp	Leu	Gly
	210					215					220				
Trp	Ala	Asp	Trp	Val	Leu	Ser	Pro	Arg	Glu	Val	Gln	Val	Thr	Met	Cys
225					230					235					240
Ile	Gly	Ala	Cys	Pro	Ser	Gln	Phe	Arg	Ala	Ala	Asn	Met	His	Ala	Gln
				245					250					255	
Ile	Lys	Thr	Ser	Leu	His	Arg	Leu	Lys	Pro	Asp	Thr	Glu	Pro	Ala	Pro
			260					265					270		
Cys	Cys	Val	Pro	Ala	Ser	Tyr	Asn	Pro	Met	Val	Leu	Ile	Gln	Lys	Thr
		275					280					285			
Asp	Thr	Gly	Val	Ser	Leu	Gln	Thr	Tyr	Asp	Asp	Leu	Leu	Ala	Lys	Asp
	290					295					300				
Cys	His	Cys	Ile												
305															

<210> 127  
 <211> 359  
 <212> PRT  
 <213> Homo sapiens

<400> 127

Met	Pro	Ala	His	Leu	Leu	Gln	Asp	Asp	Ile	Ser	Ser	Ser	Tyr	Thr	Thr
1				5					10					15	
Thr	Thr	Thr	Ile	Thr	Ala	Pro	Pro	Ser	Arg	Val	Leu	Gln	Asn	Gly	Gly
			20					25					30		
Asp	Lys	Leu	Glu	Thr	Met	Pro	Leu	Tyr	Leu	Glu	Asp	Asp	Ile	Arg	Pro
	35						40					45			
Asp	Ile	Lys	Asp	Asp	Ile	Tyr	Asp	Pro	Thr	Tyr	Lys	Asp	Lys	Glu	Gly
	50					55					60				
Pro	Ser	Pro	Lys	Val	Glu	Tyr	Val	Trp	Arg	Asn	Ile	Ile	Leu	Met	Ser
65					70					75					80
Leu	Leu	His	Leu	Gly	Ala	Leu	Tyr	Gly	Ile	Thr	Leu	Ile	Pro	Thr	Cys
			85						90					95	
Lys	Phe	Tyr	Thr	Trp	Leu	Trp	Gly	Val	Phe	Tyr	Tyr	Phe	Val	Ser	Ala
			100					105					110		
Leu	Gly	Ile	Thr	Ala	Gly	Ala	His	Arg	Leu	Trp	Ser	His	Arg	Ser	Tyr
		115					120					125			
Lys	Ala	Arg	Leu	Pro	Leu	Arg	Leu	Phe	Leu	Ile	Ile	Ala	Asn	Thr	Met
	130					135					140				
Ala	Phe	Gln	Asn	Asp	Val	Tyr	Glu	Trp	Ala	Arg	Asp	His	Arg	Ala	His

145					150					155				160
His	Lys	Phe	Ser	Glu	Thr	His	Ala	Asp	Pro	His	Asn	Ser	Arg	Arg
				165					170					175
Phe	Phe	Phe	Ser	His	Val	Gly	Trp	Leu	Val	Arg	Lys	His	Pro	Ala
			180					185					190	
Val	Lys	Glu	Lys	Gly	Ser	Thr	Leu	Asp	Leu	Ser	Asp	Leu	Glu	Ala
		195					200					205		
Lys	Leu	Val	Met	Phe	Gln	Arg	Arg	Tyr	Tyr	Lys	Pro	Gly	Leu	Leu
	210					215				220				
Met	Cys	Phe	Ile	Leu	Pro	Thr	Leu	Val	Pro	Trp	Tyr	Phe	Trp	Gly
225					230					235				240
Thr	Phe	Gln	Asn	Ser	Val	Phe	Val	Ala	Thr	Phe	Leu	Arg	Tyr	Ala
			245						250					255
Val	Leu	Asn	Ala	Thr	Trp	Leu	Val	Asn	Ser	Ala	Ala	His	Leu	Phe
		260						265					270	
Tyr	Arg	Pro	Tyr	Asp	Lys	Asn	Ile	Ser	Pro	Arg	Glu	Asn	Ile	Leu
	275					280						285		
Ser	Leu	Gly	Ala	Val	Gly	Glu	Gly	Phe	His	Asn	Tyr	His	His	Ser
	290				295					300				Phe
Pro	Tyr	Asp	Tyr	Ser	Ala	Ser	Glu	Tyr	Arg	Trp	His	Ile	Asn	Phe
305					310					315				320
Thr	Phe	Phe	Ile	Asp	Cys	Met	Ala	Ala	Leu	Gly	Leu	Ala	Tyr	Asp
			325						330					335
Lys	Lys	Val	Ser	Lys	Ala	Ala	Ile	Leu	Ala	Arg	Ile	Lys	Arg	Thr
		340						345					350	
Asp	Gly	Asn	Tyr	Lys	Ser	Gly								
		355												

<210> 128  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 128														
Met	Cys	Cys	Thr	Lys	Ser	Leu	Leu	Leu	Ala	Ala	Leu	Met	Ser	Val
1				5					10				15	
Leu	Leu	His	Leu	Cys	Gly	Glu	Ser	Glu	Ala	Ala	Ser	Asn	Phe	Asp
			20					25					30	Cys
Cys	Leu	Gly	Tyr	Thr	Asp	Arg	Ile	Leu	His	Pro	Lys	Phe	Ile	Val
	35						40					45		Gly
Phe	Thr	Arg	Gln	Leu	Ala	Asn	Glu	Gly	Cys	Asp	Ile	Asn	Ala	Ile
	50					55					60			Ile
Phe	His	Thr	Lys	Lys	Lys	Leu	Ser	Val	Cys	Ala	Asn	Pro	Lys	Gln
65					70					75				80
Trp	Val	Lys	Tyr	Ile	Val	Arg	Leu	Leu	Ser	Lys	Lys	Val	Lys	Asn
				85					90					95

<210> 129  
 <211> 518  
 <212> PRT  
 <213> Homo sapiens

<400> 129														
Met	Gly	Ala	Leu	Ala	Arg	Ala	Leu	Leu	Leu	Pro	Leu	Leu	Ala	Gln
1				5					10				15	Trp

Leu	Leu	Arg	Ala	Ala	Pro	Glu	Leu	Ala	Pro	Ala	Pro	Phe	Thr	Leu	Pro
			20					25					30		
Leu	Arg	Val	Ala	Ala	Ala	Thr	Asn	Arg	Val	Val	Ala	Pro	Thr	Pro	Gly
		35					40					45			
Pro	Gly	Thr	Pro	Ala	Glu	Arg	His	Ala	Asp	Gly	Leu	Ala	Leu	Ala	Leu
	50					55					60				
Glu	Pro	Ala	Leu	Ala	Ser	Pro	Ala	Gly	Ala	Ala	Asn	Phe	Leu	Ala	Met
65					70					75					80
Val	Asp	Asn	Leu	Gln	Gly	Asp	Ser	Gly	Arg	Gly	Tyr	Tyr	Leu	Glu	Met
				85					90					95	
Leu	Ile	Gly	Thr	Pro	Pro	Gln	Lys	Leu	Gln	Ile	Leu	Val	Asp	Thr	Gly
			100					105					110		
Ser	Ser	Asn	Phe	Ala	Val	Ala	Gly	Thr	Pro	His	Ser	Tyr	Ile	Asp	Thr
		115					120					125			
Tyr	Phe	Asp	Thr	Glu	Arg	Ser	Ser	Thr	Tyr	Arg	Ser	Lys	Gly	Phe	Asp
	130					135					140				
Val	Thr	Val	Lys	Tyr	Thr	Gln	Gly	Ser	Trp	Thr	Gly	Phe	Val	Gly	Glu
145					150					155					160
Asp	Leu	Val	Thr	Ile	Pro	Lys	Gly	Phe	Asn	Thr	Ser	Phe	Leu	Val	Asn
				165					170					175	
Ile	Ala	Thr	Ile	Phe	Glu	Ser	Glu	Asn	Phe	Phe	Leu	Pro	Gly	Ile	Lys
			180					185					190		
Trp	Asn	Gly	Ile	Leu	Gly	Leu	Ala	Tyr	Ala	Thr	Leu	Ala	Lys	Pro	Ser
	195					200						205			
Ser	Ser	Leu	Glu	Thr	Phe	Phe	Asp	Ser	Leu	Val	Thr	Gln	Ala	Asn	Ile
	210					215					220				
Pro	Asn	Val	Phe	Ser	Met	Gln	Met	Cys	Gly	Ala	Gly	Leu	Pro	Val	Ala
225					230					235					240
Gly	Ser	Gly	Thr	Asn	Gly	Gly	Ser	Leu	Val	Leu	Gly	Gly	Ile	Glu	Pro
				245					250					255	
Ser	Leu	Tyr	Lys	Gly	Asp	Ile	Trp	Tyr	Thr	Pro	Ile	Lys	Glu	Glu	Trp
			260					265					270		
Tyr	Tyr	Gln	Ile	Glu	Ile	Leu	Lys	Leu	Glu	Ile	Gly	Gly	Gln	Ser	Leu
		275				280						285			
Asn	Leu	Asp	Cys	Arg	Glu	Tyr	Asn	Ala	Asp	Lys	Ala	Ile	Val	Asp	Ser
	290					295					300				
Gly	Thr	Thr	Leu	Leu	Arg	Leu	Pro	Gln	Lys	Val	Phe	Asp	Ala	Val	Val
305					310					315					320
Glu	Ala	Val	Ala	Arg	Ala	Ser	Leu	Ile	Pro	Glu	Phe	Ser	Asp	Gly	Phe
				325					330					335	
Trp	Thr	Gly	Ser	Gln	Leu	Ala	Cys	Trp	Thr	Asn	Ser	Glu	Thr	Pro	Trp
			340					345					350		
Ser	Tyr	Phe	Pro	Lys	Ile	Ser	Ile	Tyr	Leu	Arg	Asp	Glu	Asn	Ser	Ser
		355					360					365			
Arg	Ser	Phe	Arg	Ile	Thr	Ile	Leu	Pro	Gln	Leu	Tyr	Ile	Gln	Pro	Met
	370					375					380				
Met	Gly	Ala	Gly	Leu	Asn	Tyr	Glu	Cys	Tyr	Arg	Phe	Gly	Ile	Ser	Pro
385					390					395					400
Ser	Thr	Asn	Ala	Leu	Val	Ile	Gly	Ala	Thr	Val	Met	Glu	Gly	Phe	Tyr
				405					410					415	
Val	Ile	Phe	Asp	Arg	Ala	Gln	Lys	Arg	Val	Gly	Phe	Ala	Ala	Ser	Pro
			420					425					430		
Cys	Ala	Glu	Ile	Ala	Gly	Ala	Ala	Val	Ser	Glu	Ile	Ser	Gly	Pro	Phe
		435					440					445			
Ser	Thr	Glu	Asp	Val	Ala	Ser	Asn	Cys	Val	Pro	Ala	Gln	Ser	Leu	Ser
	450					455					460				
Glu	Pro	Ile	Leu	Trp	Ile	Val	Ser	Tyr	Ala	Leu	Met	Ser	Val	Cys	Gly

465					470					475					480
Ala	Ile	Leu	Leu	Val	Leu	Ile	Val	Leu	Leu	Leu	Leu	Pro	Phe	Arg	Cys
				485					490					495	
Gln	Arg	Arg	Pro	Arg	Asp	Pro	Glu	Val	Val	Asn	Asp	Glu	Ser	Ser	Leu
			500					505					510		
Val	Arg	His	Arg	Trp	Lys										
		515													

<210> 130  
 <211> 423  
 <212> PRT  
 <213> Homo sapiens

<400> 130

Met	Arg	Ser	Ser	Gly	Ala	Asp	Ala	Gly	Arg	Cys	Leu	Val	Thr	Ala	Arg
1				5					10					15	
Ala	Pro	Gly	Ser	Val	Pro	Ala	Ser	Arg	Glu	Gly	Ser	Ala	Gly	Ser	Arg
			20					25					30		
Gly	Pro	Gly	Ala	Arg	Phe	Pro	Ala	Arg	Val	Ser	Ala	Arg	Gly	Ser	Ala
		35					40					45			
Pro	Gly	Pro	Gly	Leu	Gly	Gly	Ala	Gly	Ala	Leu	Asp	Pro	Pro	Ala	Val
	50					55					60				
Val	Ala	Glu	Ser	Val	Ser	Ser	Leu	Thr	Ile	Ala	Asp	Ala	Phe	Ile	Ala
65					70					75					80
Ala	Gly	Glu	Ser	Ser	Ala	Pro	Thr	Pro	Pro	Arg	Pro	Ala	Leu	Pro	Arg
				85					90					95	
Arg	Phe	Ile	Cys	Ser	Phe	Pro	Asp	Cys	Ser	Ala	Asn	Tyr	Ser	Lys	Ala
			100					105					110		
Trp	Lys	Leu	Asp	Ala	His	Leu	Cys	Lys	His	Thr	Gly	Glu	Arg	Pro	Phe
		115					120					125			
Val	Cys	Asp	Tyr	Glu	Gly	Cys	Gly	Lys	Ala	Phe	Ile	Arg	Asp	Tyr	His
	130					135					140				
Leu	Ser	Arg	His	Ile	Leu	Thr	His	Thr	Gly	Glu	Lys	Pro	Phe	Val	Cys
145					150					155					160
Ala	Ala	Asn	Gly	Cys	Asp	Gln	Lys	Phe	Asn	Thr	Lys	Ser	Asn	Leu	Lys
				165					170					175	
Lys	His	Phe	Glu	Arg	Lys	His	Glu	Asn	Gln	Gln	Lys	Gln	Tyr	Ile	Cys
		180						185					190		
Ser	Phe	Glu	Asp	Cys	Lys	Lys	Thr	Phe	Lys	Lys	His	Gln	Gln	Leu	Lys
	195						200					205			
Ile	His	Gln	Cys	Gln	Asn	Thr	Asn	Glu	Pro	Leu	Phe	Lys	Cys	Thr	Gln
	210					215					220				
Glu	Gly	Cys	Gly	Lys	His	Phe	Ala	Ser	Pro	Ser	Lys	Leu	Lys	Arg	His
225					230					235					240
Ala	Lys	Ala	His	Glu	Gly	Tyr	Val	Cys	Gln	Lys	Gly	Cys	Ser	Phe	Val
				245					250					255	
Ala	Lys	Thr	Trp	Thr	Glu	Leu	Leu	Lys	His	Val	Arg	Glu	Thr	His	Lys
			260					265					270		
Glu	Glu	Ile	Leu	Cys	Glu	Val	Cys	Arg	Lys	Thr	Phe	Lys	Arg	Lys	Asp
	275						280					285			
Tyr	Leu	Lys	Gln	His	Met	Lys	Thr	His	Ala	Pro	Glu	Arg	Asp	Val	Cys
	290					295					300				
Arg	Cys	Pro	Arg	Glu	Gly	Cys	Gly	Arg	Thr	Tyr	Thr	Thr	Val	Phe	Asn
305					310					315					320
Leu	Gln	Ser	His	Ile	Leu	Ser	Phe	His	Glu	Glu	Ser	Arg	Pro	Phe	Val
				325					330					335	



Cys Glu His Ala Gly Cys Gly Lys Thr Phe Ala Met Lys Gln Ser Leu  
 340 345 350  
 Thr Arg His Ala Val Val His Asp Pro Asp Lys Lys Lys Met Lys Leu  
 355 360 365  
 Lys Val Lys Lys Ser Arg Glu Lys Arg Glu Phe Gly Leu Ser Ser Gln  
 370 375 380  
 Trp Ile Tyr Pro Pro Lys Arg Lys Gln Gly Gln Gly Leu Ser Leu Cys  
 385 390 395 400  
 Gln Asn Gly Glu Ser Pro Asn Cys Val Glu Asp Lys Met Leu Ser Thr  
 405 410 415  
 Val Ala Val Leu Thr Leu Gly  
 420

<210> 131  
 <211> 677  
 <212> PRT  
 <213> Homo sapiens

<400> 131  
 Met Leu Ser Ser Thr Asp Phe Thr Phe Ala Ser Trp Glu Leu Val Val  
 1 5 10 15  
 Arg Val Asp His Pro Asn Glu Glu Gln Lys Asp Val Thr Leu Arg  
 20 25 30  
 Val Ser Gly Asp Leu His Val Gly Gly Val Met Leu Lys Leu Val Glu  
 35 40 45  
 Gln Ile Asn Ile Ser Gln Asp Trp Ser Asp Phe Ala Leu Trp Trp Glu  
 50 55 60  
 Gln Lys His Cys Trp Leu Leu Lys Thr His Trp Thr Leu Asp Lys Tyr  
 65 70 75 80  
 Gly Val Gln Ala Asp Ala Lys Leu Leu Phe Thr Pro Gln His Lys Met  
 85 90 95  
 Leu Arg Leu Arg Leu Pro Asn Leu Lys Met Val Arg Leu Arg Val Ser  
 100 105 110  
 Phe Ser Ala Val Val Phe Lys Ala Val Ser Asp Ile Cys Lys Ile Leu  
 115 120 125  
 Asn Ile Arg Arg Ser Glu Glu Leu Ser Leu Leu Lys Pro Ser Gly Asp  
 130 135 140  
 Tyr Phe Lys Lys Lys Lys Lys Lys Asp Lys Asn Asn Lys Glu Pro Ile  
 145 150 155 160  
 Ile Glu Asp Ile Leu Asn Leu Glu Ser Ser Pro Thr Ala Ser Gly Ser  
 165 170 175  
 Ser Val Ser Pro Gly Leu Tyr Ser Lys Thr Met Thr Pro Ile Tyr Asp  
 180 185 190  
 Pro Ile Asn Gly Thr Pro Ala Ser Ser Thr Met Thr Trp Phe Ser Asp  
 195 200 205  
 Ser Pro Leu Thr Glu Gln Asn Cys Ser Ile Leu Ala Phe Ser Gln Pro  
 210 215 220  
 Pro Gln Ser Pro Glu Ala Leu Ala Asp Met Tyr Gln Pro Arg Ser Leu  
 225 230 235 240  
 Val Asp Lys Ala Lys Leu Asn Ala Gly Trp Leu Asp Ser Ser Arg Ser  
 245 250 255  
 Leu Met Glu Gln Gly Ile Gln Glu Asp Glu Gln Leu Leu Leu Arg Phe  
 260 265 270  
 Lys Tyr Tyr Ser Phe Phe Asp Leu Asn Pro Lys Tyr Asp Ala Val Arg  
 275 280 285  
 Ile Asn Gln Leu Tyr Glu Gln Ala Arg Trp Ala Ile Leu Leu Glu Glu



Met	Ile	Pro	Phe	Leu	Pro	Met	Phe	Ser	Leu	Leu	Leu	Leu	Leu	Ile	Val
1				5					10					15	
Asn	Pro	Ile	Asn	Ala	Asn	Asn	His	Tyr	Asp	Lys	Ile	Leu	Ala	His	Ser
			20					25					30		
Arg	Ile	Arg	Gly	Arg	Asp	Gln	Gly	Pro	Asn	Val	Cys	Ala	Leu	Gln	Gln
		35				40					45				
Ile	Leu	Gly	Thr	Lys	Lys	Lys	Tyr	Phe	Ser	Thr	Cys	Lys	Asn	Trp	Tyr
	50					55					60				
Lys	Lys	Ser	Ile	Cys	Gly	Gln	Lys	Thr	Thr	Val	Leu	Tyr	Glu	Cys	Cys
65					70					75					80
Pro	Gly	Tyr	Met	Arg	Met	Glu	Gly	Met	Lys	Gly	Cys	Pro	Ala	Val	Leu
				85					90					95	
Pro	Ile	Asp	His	Val	Tyr	Gly	Thr	Leu	Gly	Ile	Val	Gly	Ala	Thr	Thr
			100					105					110		
Thr	Gln	Arg	Tyr	Ser	Asp	Ala	Ser	Lys	Leu	Arg	Glu	Glu	Ile	Glu	Gly
		115				120						125			
Lys	Gly	Ser	Phe	Thr	Tyr	Phe	Ala	Pro	Ser	Asn	Glu	Ala	Trp	Asp	Asn
	130					135					140				
Leu	Asp	Ser	Asp	Ile	Arg	Arg	Gly	Leu	Glu	Ser	Asn	Val	Asn	Val	Glu
145					150					155					160
Leu	Leu	Asn	Ala	Leu	His	Ser	His	Met	Ile	Asn	Lys	Arg	Met	Leu	Thr
				165					170					175	
Lys	Asp	Leu	Lys	Asn	Gly	Met	Ile	Ile	Pro	Ser	Met	Tyr	Asn	Asn	Leu
		180						185					190		
Gly	Leu	Phe	Ile	Asn	His	Tyr	Pro	Asn	Gly	Val	Val	Thr	Val	Asn	Cys
		195				200						205			
Ala	Arg	Ile	Ile	His	Gly	Asn	Gln	Ile	Ala	Thr	Asn	Gly	Val	Val	His
	210					215					220				
Val	Ile	Asp	Arg	Val	Leu	Thr	Gln	Ile	Gly	Thr	Ser	Ile	Gln	Asp	Phe
225					230					235					240
Ile	Glu	Ala	Glu	Asp	Asp	Leu	Ser	Ser	Phe	Arg	Ala	Ala	Ala	Ile	Thr
				245					250					255	
Ser	Asp	Ile	Leu	Glu	Ala	Leu	Gly	Arg	Asp	Gly	His	Phe	Thr	Leu	Phe
		260						265					270		
Ala	Pro	Thr	Asn	Glu	Ala	Phe	Glu	Lys	Leu	Pro	Arg	Gly	Val	Leu	Glu
		275				280						285			
Arg	Phe	Met	Gly	Asp	Lys	Val	Ala	Ser	Glu	Ala	Leu	Met	Lys	Tyr	His
	290					295					300				
Ile	Leu	Asn	Thr	Leu	Gln	Cys	Ser	Glu	Ser	Ile	Met	Gly	Gly	Ala	Val
305					310					315					320
Phe	Glu	Thr	Leu	Glu	Gly	Asn	Thr	Ile	Glu	Ile	Gly	Cys	Asp	Gly	Asp
			325						330					335	
Ser	Ile	Thr	Val	Asn	Gly	Ile	Lys	Met	Val	Asn	Lys	Lys	Asp	Ile	Val
		340						345					350		
Thr	Asn	Asn	Gly	Val	Ile	His	Leu	Ile	Asp	Gln	Val	Leu	Ile	Pro	Asp
		355					360					365			
Ser	Ala	Lys	Gln	Val	Ile	Glu	Leu	Ala	Gly	Lys	Gln	Gln	Thr	Thr	Phe
	370					375					380				
Thr	Asp	Leu	Val	Ala	Gln	Leu	Gly	Leu	Ala	Ser	Ala	Leu	Arg	Pro	Asp
385					390					395					400
Gly	Glu	Tyr	Thr	Leu	Leu	Ala	Pro	Val	Asn	Asn	Ala	Phe	Ser	Asp	Asp
			405						410					415	
Thr	Leu	Ser	Met	Val	Gln	Arg	Leu	Leu	Lys	Leu	Ile	Leu	Gln	Asn	His
			420					425					430		
Ile	Leu	Lys	Val	Lys	Val	Gly	Leu	Asn	Glu	Leu	Tyr	Asn	Gly	Gln	Ile
		435					440					445			
Leu	Glu	Thr	Ile	Gly	Gly	Lys	Gln	Leu	Arg	Val	Phe	Val	Tyr	Arg	Thr

450		455		460
Ala Val Cys Ile Glu Asn Ser Cys Met Glu Lys Gly Ser Lys Gln Gly				
465		470		480
Arg Asn Gly Ala Ile His Ile Phe Arg Glu Ile Ile Lys Pro Ala Glu				
	485		490	495
Lys Ser Leu His Glu Lys Leu Lys Gln Asp Lys Arg Phe Ser Thr Phe				
	500		505	510
Leu Ser Leu Leu Glu Ala Ala Asp Leu Lys Glu Leu Leu Thr Gln Pro				
	515		520	525
Gly Asp Trp Thr Leu Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met				
	530		535	540
Thr Ser Glu Glu Lys Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln				
545		550		560
Asn Ile Ile Leu Tyr His Leu Thr Pro Gly Val Phe Ile Gly Lys Gly				
	565		570	575
Phe Glu Pro Gly Val Thr Asn Ile Leu Lys Thr Thr Gln Gly Ser Lys				
	580		585	590
Ile Phe Leu Lys Glu Val Asn Asp Thr Leu Leu Val Asn Glu Leu Lys				
	595		600	605
Ser Lys Glu Ser Asp Ile Met Thr Thr Asn Gly Val Ile His Val Val				
	610		615	620
Asp Lys Leu Leu Tyr Pro Ala Asp Thr Pro Val Gly Asn Asp Gln Leu				
625		630		640
Leu Glu Ile Leu Asn Lys Leu Ile Lys Tyr Ile Gln Ile Lys Phe Val				
	645		650	655
Arg Gly Ser Thr Phe Lys Glu Ile Pro Val Thr Val Tyr Thr Thr Lys				
	660		665	670
Ile Ile Thr Lys Val Val Glu Pro Lys Ile Lys Val Ile Glu Gly Ser				
	675		680	685
Leu Gln Pro Ile Ile Lys Thr Glu Gly Pro Thr Leu Thr Lys Val Lys				
	690		695	700
Ile Glu Gly Glu Pro Glu Phe Arg Leu Ile Lys Glu Gly Glu Thr Ile				
705		710		720
Thr Glu Val Ile His Gly Glu Pro Ile Ile Lys Lys Tyr Thr Lys Ile				
	725		730	735
Ile Asp Gly Val Pro Val Glu Ile Thr Glu Lys Glu Thr Arg Glu Glu				
	740		745	750
Arg Ile Ile Thr Gly Pro Glu Ile Lys Tyr Thr Arg Ile Ser Thr Gly				
	755		760	765
Gly Gly Glu Thr Glu Glu Thr Leu Lys Lys Leu Leu Gln Glu Glu Val				
	770		775	780
Thr Lys Val Thr Lys Phe Ile Glu Gly Gly Asp Gly His Leu Phe Glu				
785		790		800
Asp Glu Glu Ile Lys Arg Leu Leu Gln Gly Asp Thr Pro Val Arg Lys				
	805		810	815
Leu Gln Ala Asn Lys Lys Val Gln Gly Ser Arg Arg Arg Leu Arg Glu				
	820		825	830
Gly Arg Ser Gln				
835				

<210> 133  
 <211> 303  
 <212> PRT  
 <213> Homo sapiens

<400> 133

Met	Arg	Ala	Trp	Ile	Phe	Phe	Leu	Leu	Cys	Leu	Ala	Gly	Arg	Ala	Leu
1				5					10					15	
Ala	Ala	Pro	Gln	Gln	Glu	Ala	Leu	Pro	Asp	Glu	Thr	Glu	Val	Val	Glu
			20					25					30		
Glu	Thr	Val	Ala	Glu	Val	Thr	Glu	Val	Ser	Val	Gly	Ala	Asn	Pro	Val
		35					40					45			
Gln	Val	Glu	Val	Gly	Glu	Phe	Asp	Asp	Gly	Ala	Glu	Glu	Thr	Glu	Glu
		50				55					60				
Glu	Val	Val	Ala	Glu	Asn	Pro	Cys	Gln	Asn	His	His	Cys	Lys	His	Gly
65					70					75					80
Lys	Val	Cys	Glu	Leu	Asp	Glu	Asn	Asn	Thr	Pro	Met	Cys	Val	Cys	Gln
				85				90					95		
Asp	Pro	Thr	Ser	Cys	Pro	Ala	Pro	Ile	Gly	Glu	Phe	Glu	Lys	Val	Cys
			100					105					110		
Ser	Asn	Asp	Asn	Lys	Thr	Phe	Asp	Ser	Ser	Cys	His	Phe	Phe	Ala	Thr
		115					120					125			
Lys	Cys	Thr	Leu	Glu	Gly	Thr	Lys	Lys	Gly	His	Lys	Leu	His	Leu	Asp
		130				135					140				
Tyr	Ile	Gly	Pro	Cys	Lys	Tyr	Ile	Pro	Pro	Cys	Leu	Asp	Ser	Glu	Leu
145					150					155					160
Thr	Glu	Phe	Pro	Leu	Arg	Met	Arg	Asp	Trp	Leu	Lys	Asn	Val	Leu	Val
				165					170					175	
Thr	Leu	Tyr	Glu	Arg	Asp	Glu	Asp	Asn	Asn	Leu	Leu	Thr	Glu	Lys	Gln
			180					185					190		
Lys	Leu	Arg	Val	Lys	Lys	Ile	His	Glu	Asn	Glu	Lys	Arg	Leu	Glu	Ala
		195					200					205			
Gly	Asp	His	Pro	Val	Glu	Leu	Ala	Arg	Asp	Phe	Glu	Lys	Asn	Tyr	
		210				215				220					
Asn	Met	Tyr	Ile	Phe	Pro	Val	His	Trp	Gln	Phe	Gly	Gln	Leu	Asp	Gln
225					230					235					240
His	Pro	Ile	Asp	Gly	Tyr	Leu	Ser	His	Thr	Glu	Leu	Ala	Pro	Leu	Arg
				245					250					255	
Ala	Pro	Leu	Ile	Pro	Met	Glu	His	Cys	Thr	Thr	Arg	Phe	Phe	Glu	Thr
			260					265					270		
Cys	Asp	Leu	Asp	Asn	Asp	Lys	Tyr	Ile	Ala	Leu	Asp	Glu	Trp	Ala	Gly
		275					280					285			
Cys	Phe	Gly	Ile	Lys	Gln	Lys	Asp	Ile	Asp	Lys	Asp	Leu	Val	Ile	
		290				295					300				

<210> 134

<211> 683

<212> PRT

<213> Homo sapiens

<400> 134

Met	Ala	Leu	Phe	Val	Arg	Leu	Leu	Ala	Leu	Ala	Leu	Ala	Leu	Ala	Leu
1				5				10					15		
Gly	Pro	Ala	Ala	Thr	Leu	Ala	Gly	Pro	Ala	Lys	Ser	Pro	Tyr	Gln	Leu
			20					25					30		
Val	Leu	Gln	His	Ser	Arg	Leu	Arg	Gly	Arg	Gln	His	Gly	Pro	Asn	Val
		35					40					45			
Cys	Ala	Val	Gln	Lys	Val	Ile	Gly	Thr	Asn	Arg	Lys	Tyr	Phe	Thr	Asn
		50				55					60				
Cys	Lys	Gln	Trp	Tyr	Gln	Arg	Lys	Ile	Cys	Gly	Lys	Ser	Thr	Val	Ile
65					70					75					80
Ser	Tyr	Glu	Cys	Cys	Pro	Gly	Tyr	Glu	Lys	Val	Pro	Gly	Glu	Lys	Gly

				85					90					95			
Cys	Pro	Ala	Ala	Leu	Pro	Leu	Ser	Asn	Leu	Tyr	Glu	Thr	Leu	Gly	Val		
			100					105					110				
Val	Gly	Ser	Thr	Thr	Thr	Gln	Leu	Tyr	Thr	Asp	Arg	Thr	Glu	Lys	Leu		
		115					120					125					
Arg	Pro	Glu	Met	Glu	Gly	Pro	Gly	Ser	Phe	Thr	Ile	Phe	Ala	Pro	Ser		
	130					135					140						
Asn	Glu	Ala	Trp	Ala	Ser	Leu	Pro	Ala	Glu	Val	Leu	Asp	Ser	Leu	Val		
145					150					155					160		
Ser	Asn	Val	Asn	Ile	Glu	Leu	Leu	Asn	Ala	Leu	Arg	Tyr	His	Met	Val		
			165						170					175			
Gly	Arg	Arg	Val	Leu	Thr	Asp	Glu	Leu	Lys	His	Gly	Met	Thr	Leu	Thr		
			180				185					190					
Ser	Met	Tyr	Gln	Asn	Ser	Asn	Ile	Gln	Ile	His	His	Tyr	Pro	Asn	Gly		
		195				200						205					
Ile	Val	Thr	Val	Asn	Cys	Ala	Arg	Leu	Leu	Lys	Ala	Asp	His	His	Ala		
	210					215					220						
Thr	Asn	Gly	Val	Val	His	Leu	Ile	Asp	Lys	Val	Ile	Ser	Thr	Ile	Thr		
225					230					235					240		
Asn	Asn	Ile	Gln	Gln	Ile	Ile	Glu	Ile	Glu	Asp	Thr	Phe	Glu	Thr	Leu		
			245						250					255			
Arg	Ala	Ala	Val	Ala	Ala	Ser	Gly	Leu	Asn	Thr	Met	Leu	Glu	Gly	Asn		
		260						265					270				
Gly	Gln	Tyr	Thr	Leu	Leu	Ala	Pro	Thr	Asn	Glu	Ala	Phe	Glu	Lys	Ile		
		275					280					285					
Pro	Ser	Glu	Thr	Leu	Asn	Arg	Ile	Leu	Gly	Asp	Pro	Glu	Ala	Leu	Arg		
	290				295						300						
Asp	Leu	Leu	Asn	Asn	His	Ile	Leu	Lys	Ser	Ala	Met	Cys	Ala	Glu	Ala		
305				310						315					320		
Ile	Val	Ala	Gly	Leu	Ser	Val	Glu	Thr	Leu	Glu	Gly	Thr	Thr	Leu	Glu		
			325						330					335			
Val	Gly	Cys	Ser	Gly	Asp	Met	Leu	Thr	Ile	Asn	Gly	Lys	Ala	Ile	Ile		
		340						345					350				
Ser	Asn	Lys	Asp	Ile	Leu	Ala	Thr	Asn	Gly	Val	Ile	His	Tyr	Ile	Asp		
		355					360					365					
Glu	Leu	Leu	Ile	Pro	Asp	Ser	Ala	Lys	Thr	Leu	Phe	Glu	Leu	Ala	Ala		
	370				375						380						
Glu	Ser	Asp	Val	Ser	Thr	Ala	Ile	Asp	Leu	Phe	Arg	Gln	Ala	Gly	Leu		
385					390					395					400		
Gly	Asn	His	Leu	Ser	Gly	Ser	Glu	Arg	Leu	Thr	Leu	Leu	Ala	Pro	Leu		
			405					410						415			
Asn	Ser	Val	Phe	Lys	Asp	Gly	Thr	Pro	Ile	Asp	Ala	His	Thr	Arg			
		420						425				430					
Asn	Leu	Leu	Arg	Asn	His	Ile	Ile	Lys	Asp	Gln	Leu	Ala	Ser	Lys	Tyr		
		435					440					445					
Leu	Tyr	His	Gly	Gln	Thr	Leu	Glu	Thr	Leu	Gly	Gly	Lys	Lys	Leu	Arg		
	450					455					460						
Val	Phe	Val	Tyr	Arg	Asn	Ser	Leu	Cys	Ile	Glu	Asn	Ser	Cys	Ile	Ala		
465					470					475					480		
Ala	His	Asp	Lys	Arg	Gly	Arg	Tyr	Gly	Thr	Leu	Phe	Thr	Met	Asp	Arg		
			485					490						495			
Val	Leu	Thr	Pro	Pro	Met	Gly	Thr	Val	Met	Asp	Val	Leu	Lys	Gly	Asp		
			500					505					510				
Asn	Arg	Phe	Ser	Met	Leu	Val	Ala	Ala	Ile	Gln	Ser	Ala	Gly	Leu	Thr		
		515					520					525					
Glu	Thr	Leu	Asn	Arg	Glu	Gly	Val	Tyr	Thr	Val	Phe	Ala	Pro	Thr	Asn		
	530					535					540						

Glu	Ala	Phe	Arg	Ala	Leu	Pro	Pro	Arg	Glu	Arg	Ser	Arg	Leu	Leu	Gly
545					550					555					560
Asp	Ala	Lys	Glu	Leu	Ala	Asn	Ile	Leu	Lys	Tyr	His	Ile	Gly	Asp	Glu
				565					570					575	
Ile	Leu	Val	Ser	Gly	Gly	Ile	Gly	Ala	Leu	Val	Arg	Leu	Lys	Ser	Leu
			580					585					590		
Gln	Gly	Asp	Lys	Leu	Glu	Val	Ser	Leu	Lys	Asn	Asn	Val	Val	Ser	Val
		595					600					605			
Asn	Lys	Glu	Pro	Val	Ala	Glu	Pro	Asp	Ile	Met	Ala	Thr	Asn	Gly	Val
	610					615					620				
Val	His	Val	Ile	Thr	Asn	Val	Leu	Gln	Pro	Pro	Ala	Asn	Arg	Pro	Gln
625					630					635					640
Glu	Arg	Gly	Asp	Glu	Leu	Ala	Asp	Ser	Ala	Leu	Glu	Ile	Phe	Lys	Gln
				645					650					655	
Ala	Ser	Ala	Phe	Ser	Arg	Ala	Ser	Gln	Arg	Ser	Val	Arg	Leu	Ala	Pro
			660					665					670		
Val	Tyr	Gln	Lys	Leu	Leu	Glu	Arg	Met	Lys	His					
		675					680								

<210> 135  
 <211> 2355  
 <212> PRT  
 <213> Homo sapiens

<400> 135

Met	Leu	Arg	Gly	Pro	Gly	Pro	Gly	Leu	Leu	Leu	Leu	Ala	Val	Gln	Cys
1				5				10						15	
Leu	Gly	Thr	Ala	Val	Pro	Ser	Thr	Gly	Ala	Ser	Lys	Ser	Lys	Arg	Gln
			20					25					30		
Ala	Gln	Gln	Met	Val	Gln	Pro	Gln	Ser	Pro	Val	Ala	Val	Ser	Gln	Ser
			35				40					45			
Lys	Pro	Gly	Cys	Tyr	Asp	Asn	Gly	Lys	His	Tyr	Gln	Ile	Asn	Gln	Gln
	50					55				60					
Trp	Glu	Arg	Thr	Tyr	Leu	Gly	Asn	Ala	Leu	Val	Cys	Thr	Cys	Tyr	Gly
65					70					75				80	
Gly	Ser	Arg	Gly	Phe	Asn	Cys	Glu	Ser	Lys	Pro	Glu	Ala	Glu	Glu	Thr
				85					90					95	
Cys	Phe	Asp	Lys	Tyr	Thr	Gly	Asn	Thr	Tyr	Arg	Val	Gly	Asp	Thr	Tyr
			100					105					110		
Glu	Arg	Pro	Lys	Asp	Ser	Met	Ile	Trp	Asp	Cys	Thr	Cys	Ile	Gly	Ala
		115					120					125			
Gly	Arg	Gly	Arg	Ile	Ser	Cys	Thr	Ile	Ala	Asn	Arg	Cys	His	Glu	Gly
	130					135					140				
Gly	Gln	Ser	Tyr	Lys	Ile	Gly	Asp	Thr	Trp	Arg	Arg	Pro	His	Glu	Thr
145					150					155					160
Gly	Gly	Tyr	Met	Leu	Glu	Cys	Val	Cys	Leu	Gly	Asn	Gly	Lys	Gly	Glu
				165					170					175	
Trp	Thr	Cys	Lys	Pro	Ile	Ala	Glu	Lys	Cys	Phe	Asp	His	Ala	Ala	Gly
			180					185					190		
Thr	Ser	Tyr	Val	Val	Gly	Glu	Thr	Trp	Glu	Lys	Pro	Tyr	Gln	Gly	Trp
		195					200					205			
Met	Met	Val	Asp	Cys	Thr	Cys	Leu	Gly	Glu	Gly	Ser	Gly	Arg	Ile	Thr
	210					215					220				
Cys	Thr	Ser	Arg	Asn	Arg	Cys	Asn	Asp	Gln	Asp	Thr	Arg	Thr	Ser	Tyr
225					230					235					240
Arg	Ile	Gly	Asp	Thr	Trp	Ser	Lys	Lys	Asp	Asn	Arg	Gly	Asn	Leu	Leu

				245					250					255			
Gln	Cys	Ile	Cys	Thr	Gly	Asn	Gly	Arg	Gly	Glu	Trp	Lys	Cys	Glu	Arg		
			260					265					270				
His	Thr	Ser	Val	Gln	Thr	Thr	Ser	Ser	Gly	Ser	Gly	Pro	Phe	Thr	Asp		
		275					280					285					
Val	Arg	Ala	Ala	Val	Tyr	Gln	Pro	Gln	Pro	His	Pro	Gln	Pro	Pro	Pro		
	290					295					300						
Tyr	Gly	His	Cys	Val	Thr	Asp	Ser	Gly	Val	Val	Tyr	Ser	Val	Gly	Met		
305					310					315					320		
Gln	Trp	Leu	Lys	Thr	Gln	Gly	Asn	Lys	Gln	Met	Leu	Cys	Thr	Cys	Leu		
			325						330					335			
Gly	Asn	Gly	Val	Ser	Cys	Gln	Glu	Thr	Ala	Val	Thr	Gln	Thr	Tyr	Gly		
			340					345					350				
Gly	Asn	Ser	Asn	Gly	Glu	Pro	Cys	Val	Leu	Pro	Phe	Thr	Tyr	Asn	Gly		
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Arg	Thr	Phe	Tyr	Ser	Cys	Thr	Thr	Glu	Gly	Arg	Gln	Asp	Gly	His	Leu		
	370					375					380						
Trp	Cys	Ser	Thr	Thr	Ser	Asn	Tyr	Glu	Gln	Asp	Gln	Lys	Tyr	Ser	Phe		
385					390					395					400		
Cys	Thr	Asp	His	Thr	Val	Leu	Val	Gln	Thr	Arg	Gly	Gly	Asn	Ser	Asn		
			405						410					415			
Gly	Ala	Leu	Cys	His	Phe	Pro	Phe	Leu	Tyr	Asn	Asn	His	Asn	Tyr	Thr		
		420						425					430				
Asp	Cys	Thr	Ser	Glu	Gly	Arg	Arg	Asp	Asn	Met	Lys	Trp	Cys	Gly	Thr		
	435						440					445					
Thr	Gln	Asn	Tyr	Asp	Ala	Asp	Gln	Lys	Phe	Gly	Phe	Cys	Pro	Met	Ala		
	450					455					460						
Ala	His	Glu	Glu	Ile	Cys	Thr	Thr	Asn	Glu	Gly	Val	Met	Tyr	Arg	Ile		
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Gly	Asp	Gln	Trp	Asp	Lys	Gln	His	Asp	Met	Gly	His	Met	Met	Arg	Cys		
			485					490						495			
Thr	Cys	Val	Gly	Asn	Gly	Arg	Gly	Glu	Trp	Thr	Cys	Ile	Ala	Tyr	Ser		
		500						505					510				
Gln	Leu	Arg	Asp	Gln	Cys	Ile	Val	Asp	Asp	Ile	Thr	Tyr	Asn	Val	Asn		
		515					520					525					
Asp	Thr	Phe	His	Lys	Arg	His	Glu	Glu	Gly	His	Met	Leu	Asn	Cys	Thr		
	530					535					540						
Cys	Phe	Gly	Gln	Gly	Arg	Gly	Arg	Trp	Lys	Cys	Asp	Pro	Val	Asp	Gln		
545					550					555					560		
Cys	Gln	Asp	Ser	Glu	Thr	Gly	Thr	Phe	Tyr	Gln	Ile	Gly	Asp	Ser	Trp		
			565					570						575			
Glu	Lys	Tyr	Val	His	Gly	Val	Arg	Tyr	Gln	Cys	Tyr	Cys	Tyr	Gly	Arg		
		580						585					590				
Gly	Ile	Gly	Glu	Trp	His	Cys	Gln	Pro	Leu	Gln	Thr	Tyr	Pro	Ser	Ser		
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Ser	Gly	Pro	Val	Glu	Val	Phe	Ile	Thr	Glu	Thr	Pro	Ser	Gln	Pro	Asn		
	610					615					620						
Ser	His	Pro	Ile	Gln	Trp	Asn	Ala	Pro	Gln	Pro	Ser	His	Ile	Ser	Lys		
625					630					635					640		
Tyr	Ile	Leu	Arg	Trp	Arg	Pro	Lys	Asn	Ser	Val	Gly	Arg	Trp	Lys	Glu		
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Ala	Thr	Ile	Pro	Gly	His	Leu	Asn	Ser	Tyr	Thr	Ile	Lys	Gly	Leu	Lys		
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Pro	Gly	Val	Val	Tyr	Glu	Gly	Gln	Leu	Ile	Ser	Ile	Gln	Gln	Tyr	Gly		
		675					680					685					
His	Gln	Glu	Val	Thr	Arg	Phe	Asp	Phe	Thr	Thr	Thr	Ser	Thr	Ser	Thr		
	690					695					700						



Pro	Val	Thr	Ser	Asn	Thr	Val	Thr	Gly	Glu	Thr	Thr	Pro	Phe	Ser	Pro	705	710	715	720
Leu	Val	Ala	Thr	Ser	Glu	Ser	Val	Thr	Glu	Ile	Thr	Ala	Ser	Ser	Phe	725	730	735	
Val	Val	Ser	Trp	Val	Ser	Ala	Ser	Asp	Thr	Val	Ser	Gly	Phe	Arg	Val	740	745	750	
Glu	Tyr	Glu	Leu	Ser	Glu	Glu	Gly	Asp	Glu	Pro	Gln	Tyr	Leu	Asp	Leu	755	760	765	
Pro	Ser	Thr	Ala	Thr	Ser	Val	Asn	Ile	Pro	Asp	Leu	Leu	Pro	Gly	Arg	770	775	780	
Lys	Tyr	Ile	Val	Asn	Val	Tyr	Gln	Ile	Ser	Glu	Asp	Gly	Glu	Gln	Ser	785	790	795	800
Leu	Ile	Leu	Ser	Thr	Ser	Gln	Thr	Thr	Ala	Pro	Asp	Ala	Pro	Pro	Asp	805	810	815	
Pro	Thr	Val	Asp	Gln	Val	Asp	Asp	Thr	Ser	Ile	Val	Val	Arg	Trp	Ser	820	825	830	
Arg	Pro	Gln	Ala	Pro	Ile	Thr	Gly	Tyr	Arg	Ile	Val	Tyr	Ser	Pro	Ser	835	840	845	
Val	Glu	Gly	Ser	Ser	Thr	Glu	Leu	Asn	Leu	Pro	Glu	Thr	Ala	Asn	Ser	850	855	860	
Val	Thr	Leu	Ser	Asp	Leu	Gln	Pro	Gly	Val	Gln	Tyr	Asn	Ile	Thr	Ile	865	870	875	880
Tyr	Ala	Val	Glu	Glu	Asn	Gln	Glu	Ser	Thr	Pro	Val	Val	Ile	Gln	Gln	885	890	895	
Glu	Thr	Thr	Gly	Thr	Pro	Arg	Ser	Asp	Thr	Val	Pro	Ser	Pro	Arg	Asp	900	905	910	
Leu	Gln	Phe	Val	Glu	Val	Thr	Asp	Val	Lys	Val	Thr	Ile	Met	Trp	Thr	915	920	925	
Pro	Pro	Glu	Ser	Ala	Val	Thr	Gly	Tyr	Arg	Val	Asp	Val	Ile	Pro	Val	930	935	940	
Asn	Leu	Pro	Gly	Glu	His	Gly	Gln	Arg	Leu	Pro	Ile	Ser	Arg	Asn	Thr	945	950	955	960
Phe	Ala	Glu	Val	Thr	Gly	Leu	Ser	Pro	Gly	Val	Thr	Tyr	Tyr	Phe	Lys	965	970	975	
Val	Phe	Ala	Val	Ser	His	Gly	Arg	Glu	Ser	Lys	Pro	Leu	Thr	Ala	Gln	980	985	990	
Gln	Thr	Thr	Lys	Leu	Asp	Ala	Pro	Thr	Asn	Leu	Gln	Phe	Val	Asn	Glu	995	1000	1005	
Thr	Asp	Ser	Thr	Val	Leu	Val	Arg	Trp	Thr	Pro	Pro	Arg	Ala	Gln	Ile	1010	1015	1020	
Thr	Gly	Tyr	Arg	Leu	Thr	Val	Gly	Leu	Thr	Arg	Arg	Gly	Gln	Pro	Arg	1025	1030	1035	1040
Gln	Tyr	Asn	Val	Gly	Pro	Ser	Val	Ser	Lys	Tyr	Pro	Leu	Arg	Asn	Leu	1045	1050	1055	
Gln	Pro	Ala	Ser	Glu	Tyr	Thr	Val	Ser	Leu	Val	Ala	Ile	Lys	Gly	Asn	1060	1065	1070	
Gln	Glu	Ser	Pro	Lys	Ala	Thr	Gly	Val	Phe	Thr	Thr	Leu	Gln	Pro	Gly	1075	1080	1085	
Ser	Ser	Ile	Pro	Pro	Tyr	Asn	Thr	Glu	Val	Thr	Glu	Thr	Thr	Ile	Val	1090	1095	1100	
Ile	Thr	Trp	Thr	Pro	Ala	Pro	Arg	Ile	Gly	Phe	Lys	Leu	Gly	Val	Arg	1105	1110	1115	1120
Pro	Ser	Gln	Gly	Gly	Glu	Ala	Pro	Arg	Glu	Val	Thr	Ser	Asp	Ser	Gly	1125	1130	1135	
Ser	Ile	Val	Val	Ser	Gly	Leu	Thr	Pro	Gly	Val	Glu	Tyr	Val	Tyr	Thr	1140	1145	1150	
Ile	Gln	Val	Leu	Arg	Asp	Gly	Gln	Glu	Arg	Asp	Ala	Pro	Ile	Val	Asn				



Pro Ser Gly Glu Ser Gln Pro Leu Val Gln Thr Ala Val Thr Asn Ile  
 1620 1625 1630  
 Asp Arg Pro Lys Gly Leu Ala Phe Thr Asp Val Asp Val Asp Ser Ile  
 1635 1640 1645  
 Lys Ile Ala Trp Glu Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val  
 1650 1655 1660  
 Thr Tyr Ser Ser Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro  
 1665 1670 1675 1680  
 Asp Gly Glu Glu Asp Thr Ala Glu Leu Gln Gly Leu Arg Pro Gly Ser  
 1685 1690 1695  
 Glu Tyr Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln  
 1700 1705 1710  
 Pro Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro Thr Asp Leu  
 1715 1720 1725  
 Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr Pro  
 1730 1735 1740  
 Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro Lys Glu  
 1745 1750 1755 1760  
 Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser  
 1765 1770 1775  
 Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val  
 1780 1785 1790  
 Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val  
 1795 1800 1805  
 Thr Thr Leu Glu Asn Val Ser Pro Pro Arg Arg Ala Arg Val Thr Asp  
 1810 1815 1820  
 Ala Thr Glu Thr Thr Ile Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr  
 1825 1830 1835 1840  
 Ile Thr Gly Phe Gln Val Asp Ala Val Pro Ala Asn Gly Gln Thr Pro  
 1845 1850 1855  
 Ile Gln Arg Thr Ile Lys Pro Asp Val Arg Ser Tyr Thr Ile Thr Gly  
 1860 1865 1870  
 Leu Gln Pro Gly Thr Asp Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp  
 1875 1880 1885  
 Asn Ala Arg Ser Ser Pro Val Val Ile Asp Ala Ser Thr Ala Ile Asp  
 1890 1895 1900  
 Ala Pro Ser Asn Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu  
 1905 1910 1915 1920  
 Val Ser Trp Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys  
 1925 1930 1935  
 Tyr Glu Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg  
 1940 1945 1950  
 Pro Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu  
 1955 1960 1965  
 Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu Pro  
 1970 1975 1980  
 Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu Val Thr Leu  
 1985 1990 1995 2000  
 Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val Pro Ser Thr  
 2005 2010 2015  
 Val Gln Lys Thr Pro Phe Val Thr His Pro Gly Tyr Asp Thr Gly Asn  
 2020 2025 2030  
 Gly Ile Gln Leu Pro Gly Thr Ser Gly Gln Gln Pro Ser Val Gly Gln  
 2035 2040 2045  
 Gln Met Ile Phe Glu Glu His Gly Phe Arg Arg Thr Thr Pro Pro Thr  
 2050 2055 2060  
 Thr Ala Thr Pro Ile Arg His Arg Pro Arg Pro Tyr Pro Pro Asn Val

2065					2070					2075				2080	
Gly	Gln	Glu	Ala	Leu	Ser	Gln	Thr	Thr	Ile	Ser	Trp	Ala	Pro	Phe	Gln
				2085					2090					2095	
Asp	Thr	Ser	Glu	Tyr	Ile	Ile	Ser	Cys	His	Pro	Val	Gly	Thr	Asp	Glu
			2100					2105					2110		
Glu	Pro	Leu	Gln	Phe	Arg	Val	Pro	Gly	Thr	Ser	Thr	Ser	Ala	Thr	Leu
		2115					2120					2125			
Thr	Gly	Leu	Thr	Arg	Gly	Ala	Thr	Tyr	Asn	Ile	Ile	Val	Glu	Ala	Leu
	2130					2135					2140				
Lys	Asp	Gln	Gln	Arg	His	Lys	Val	Arg	Glu	Glu	Val	Val	Thr	Val	Gly
2145				2150					2155					2160	
Asn	Ser	Val	Asn	Glu	Gly	Leu	Asn	Gln	Pro	Thr	Asp	Asp	Ser	Cys	Phe
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Asp	Pro	Tyr	Thr	Val	Ser	His	Tyr	Ala	Val	Gly	Asp	Glu	Trp	Glu	Arg
			2180					2185					2190		
Met	Ser	Glu	Ser	Gly	Phe	Lys	Leu	Leu	Cys	Gln	Cys	Leu	Gly	Phe	Gly
		2195					2200					2205			
Ser	Gly	His	Phe	Arg	Cys	Asp	Ser	Ser	Arg	Trp	Cys	His	Asp	Asn	Gly
	2210					2215					2220				
Val	Asn	Tyr	Lys	Ile	Gly	Glu	Lys	Trp	Asp	Arg	Gln	Gly	Glu	Asn	Gly
2225				2230					2235					2240	
Gln	Met	Met	Ser	Cys	Thr	Cys	Leu	Gly	Asn	Gly	Lys	Gly	Glu	Phe	Lys
			2245					2250						2255	
Cys	Asp	Pro	His	Glu	Ala	Thr	Cys	Tyr	Asp	Asp	Gly	Lys	Thr	Tyr	His
			2260					2265					2270		
Val	Gly	Glu	Gln	Trp	Gln	Lys	Glu	Tyr	Leu	Gly	Ala	Ile	Cys	Ser	Cys
		2275				2280					2285				
Thr	Cys	Phe	Gly	Gly	Gln	Arg	Gly	Trp	Arg	Cys	Asp	Asn	Cys	Arg	Arg
	2290					2295					2300				
Pro	Gly	Gly	Glu	Pro	Ser	Pro	Glu	Gly	Thr	Thr	Gly	Gln	Ser	Tyr	Asn
2305				2310					2315					2320	
Gln	Tyr	Ser	Gln	Arg	Tyr	His	Gln	Arg	Thr	Asn	Thr	Asn	Val	Asn	Cys
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Pro	Ile	Glu	Cys	Phe	Met	Pro	Leu	Asp	Val	Gln	Ala	Asp	Arg	Glu	Asp
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Ser	Arg	Glu													
		2355													

<210> 136  
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 <212> PRT  
 <213> Homo sapiens

<400> 136

Met	Leu	Ser	Phe	Val	Asp	Thr	Arg	Thr	Leu	Leu	Leu	Leu	Ala	Val	Thr
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Gly	Pro	Ala	Gly	Asp	Arg	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Pro	Pro	Gly
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Pro	Pro	Gly	Arg	Asp	Gly	Glu	Asp	Gly	Pro	Thr	Gly	Pro	Pro	Gly	Pro
	50					55					60				
Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gly	Gly	Asn	Phe	Ala	Ala	Gln
65				70					75					80	
Tyr	Asp	Gly	Lys	Gly	Val	Gly	Leu	Gly	Pro	Gly	Pro	Met	Gly	Leu	Met
			85					90						95	

Gly	Pro	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Gly	Ala	Pro	Gly	Pro	Gln	Gly	100	105	110
Phe	Gln	Gly	Pro	Ala	Gly	Glu	Pro	Gly	Glu	Pro	Gly	Gln	Thr	Gly	Pro	115	120	125
Ala	Gly	Ala	Arg	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Lys	Ala	Gly	Glu	Asp	130	135	140
Gly	His	Pro	Gly	Lys	Pro	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Val	Val	Gly	145	150	155
Pro	Gln	Gly	Ala	Arg	Gly	Phe	Pro	Gly	Thr	Pro	Gly	Leu	Pro	Gly	Phe	165	170	175
Lys	Gly	Ile	Arg	Gly	His	Asn	Gly	Leu	Asp	Gly	Leu	Lys	Gly	Gln	Pro	180	185	190
Gly	Ala	Pro	Gly	Val	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Glu	Asn	Gly	195	200	205
Thr	Pro	Gly	Gln	Thr	Gly	Ala	Arg	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg	210	215	220
Val	Gly	Ala	Pro	Gly	Pro	Ala	Gly	Ala	Arg	Gly	Ser	Asp	Gly	Ser	Val	225	230	235
Gly	Pro	Val	Gly	Pro	Ala	Gly	Pro	Ile	Gly	Ser	Ala	Gly	Pro	Pro	Gly	245	250	255
Phe	Pro	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Glu	Ile	Gly	Ala	Val	Gly	Asn	260	265	270
Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Val	Gly	Leu	Pro	275	280	285
Gly	Leu	Ser	Gly	Pro	Val	Gly	Pro	Pro	Gly	Asn	Pro	Gly	Ala	Asn	Gly	290	295	300
Leu	Thr	Gly	Ala	Lys	Gly	Ala	Ala	Gly	Leu	Pro	Gly	Val	Ala	Gly	Ala	305	310	315
Pro	Gly	Leu	Pro	Gly	Pro	Arg	Gly	Ile	Pro	Gly	Pro	Val	Gly	Ala	Ala	325	330	335
Gly	Ala	Thr	Gly	Ala	Arg	Gly	Leu	Val	Gly	Glu	Pro	Gly	Pro	Ala	Gly	340	345	350
Ser	Lys	Gly	Glu	Ser	Gly	Asn	Lys	Gly	Glu	Pro	Gly	Ser	Ala	Gly	Pro	355	360	365
Gln	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Glu	Glu	Gly	Lys	Arg	Gly	Pro	Asn	370	375	380
Gly	Glu	Ala	Gly	Ser	Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Arg	Gly	385	390	395
Ser	Pro	Gly	Ser	Arg	Gly	Leu	Pro	Gly	Ala	Asp	Gly	Arg	Ala	Gly	Val	405	410	415
Met	Gly	Pro	Pro	Gly	Ser	Arg	Gly	Ala	Ser	Gly	Pro	Ala	Gly	Val	Arg	420	425	430
Gly	Pro	Asn	Gly	Asp	Ala	Gly	Arg	Pro	Gly	Glu	Pro	Gly	Leu	Met	Gly	435	440	445
Pro	Arg	Gly	Leu	Pro	Gly	Ser	Pro	Gly	Asn	Ile	Gly	Pro	Ala	Gly	Lys	450	455	460
Glu	Gly	Pro	Val	Gly	Leu	Pro	Gly	Ile	Asp	Gly	Arg	Pro	Gly	Pro	Ile	465	470	475
Gly	Pro	Ala	Gly	Ala	Arg	Gly	Glu	Pro	Gly	Asn	Ile	Gly	Phe	Pro	Gly	485	490	495
Pro	Lys	Gly	Pro	Thr	Gly	Asp	Pro	Gly	Lys	Asn	Gly	Asp	Lys	Gly	His	500	505	510
Ala	Gly	Leu	Ala	Gly	Ala	Arg	Gly	Ala	Pro	Gly	Pro	Asp	Gly	Asn	Asn	515	520	525
Gly	Ala	Gln	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Val	Gln	Gly	Gly	Lys	Gly	530	535	540
Glu	Gln	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Phe	Gln	Gly	Leu	Pro	Gly	Pro			

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Ser	Gly	Pro	Ala	Gly	Glu	Val	Gly	Lys	Pro	Gly	Glu	Arg	Gly	Leu His
				565					570					575
Gly	Glu	Phe	Gly	Leu	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Arg Gly
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Pro	Pro	Gly	Glu	Ser	Gly	Ala	Ala	Gly	Pro	Thr	Gly	Pro	Ile	Gly Ser
		595					600					605		
Arg	Gly	Pro	Ser	Gly	Pro	Pro	Gly	Pro	Asp	Gly	Asn	Lys	Gly	Glu Pro
	610					615					620			
Gly	Val	Val	Gly	Ala	Val	Gly	Thr	Ala	Gly	Pro	Ser	Gly	Pro	Ser Gly
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Leu	Pro	Gly	Glu	Arg	Gly	Ala	Ala	Gly	Ile	Pro	Gly	Gly	Lys	Gly Glu
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Lys	Gly	Glu	Pro	Gly	Leu	Arg	Gly	Glu	Ile	Gly	Asn	Pro	Gly	Arg Asp
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Gly	Ala	Arg	Gly	Ala	His	Gly	Ala	Val	Gly	Ala	Pro	Gly	Pro	Ala Gly
		675					680					685		
Ala	Thr	Gly	Asp	Arg	Gly	Glu	Ala	Gly	Ala	Ala	Gly	Pro	Ala	Gly Pro
	690					695					700			
Ala	Gly	Pro	Arg	Gly	Ser	Pro	Gly	Glu	Arg	Gly	Glu	Val	Gly	Pro Ala
705					710					715				720
Gly	Pro	Asn	Gly	Phe	Ala	Gly	Pro	Ala	Gly	Ala	Ala	Gly	Gln	Pro Gly
				725					730					735
Ala	Lys	Gly	Glu	Arg	Gly	Ala	Lys	Gly	Pro	Lys	Gly	Glu	Asn	Gly Val
			740					745					750	
Val	Gly	Pro	Thr	Gly	Pro	Val	Gly	Ala	Ala	Gly	Pro	Ala	Gly	Pro Asn
		755					760					765		
Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ser	Arg	Gly	Asp	Gly	Gly	Pro	Pro Gly
	770					775					780			
Met	Thr	Gly	Phe	Pro	Gly	Ala	Ala	Gly	Arg	Thr	Gly	Pro	Pro	Gly Pro
785					790					795				800
Ser	Gly	Ile	Ser	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Lys Glu
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Gly	Leu	Arg	Gly	Pro	Arg	Gly	Asp	Gln	Gly	Pro	Val	Gly	Arg	Thr Gly
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Glu	Val	Gly	Ala	Val	Gly	Pro	Pro	Gly	Phe	Ala	Gly	Glu	Lys	Gly Pro
			835					840				845		
Ser	Gly	Glu	Ala	Gly	Thr	Ala	Gly	Pro	Pro	Gly	Thr	Pro	Gly	Pro Gln
	850					855					860			
Gly	Leu	Leu	Gly	Ala	Pro	Gly	Ile	Leu	Gly	Leu	Pro	Gly	Ser	Arg Gly
865					870					875				880
Glu	Arg	Gly	Leu	Pro	Gly	Val	Ala	Gly	Ala	Val	Gly	Glu	Pro	Gly Pro
				885					890					895
Leu	Gly	Ile	Ala	Gly	Pro	Pro	Gly	Ala	Arg	Gly	Pro	Pro	Gly	Ala Val
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Gly	Ser	Pro	Gly	Val	Asn	Gly	Ala	Pro	Gly	Glu	Ala	Gly	Arg	Asp Gly
		915					920					925		
Asn	Pro	Gly	Asn	Asp	Gly	Pro	Pro	Gly	Arg	Asp	Gly	Gln	Pro	Gly His
	930					935					940			
Lys	Gly	Glu	Arg	Gly	Tyr	Pro	Gly	Asn	Ile	Gly	Pro	Val	Gly	Ala Ala
945					950					955				960
Gly	Ala	Pro	Gly	Pro	His	Gly	Pro	Val	Gly	Pro	Ala	Gly	Lys	His Gly
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Asn	Arg	Gly	Glu	Thr	Gly	Pro	Ser	Gly	Pro	Val	Gly	Pro	Ala	Gly Ala
			980					985					990	
Val	Gly	Pro	Arg	Gly	Pro	Ser	Gly	Pro	Gln	Gly	Ile	Arg	Gly	Asp Lys
		995					1000						1005	

Gly Glu Pro Gly Glu Lys Gly Pro Arg Gly Leu Pro Gly Leu Lys Gly  
 1010 1015 1020  
 His Asn Gly Leu Gln Gly Leu Pro Gly Ile Ala Gly His His Gly Asp  
 1025 1030 1035 1040  
 Gln Gly Ala Pro Gly Ser Val Gly Pro Ala Gly Pro Arg Gly Pro Ala  
 1045 1050 1055  
 Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly Arg Thr Gly His Pro Gly  
 1060 1065 1070  
 Thr Val Gly Pro Ala Gly Ile Arg Gly Pro Gln Gly His Gln Gly Pro  
 1075 1080 1085  
 Ala Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Val Ser  
 1090 1095 1100  
 Gly Gly Gly Tyr Asp Phe Gly Tyr Asp Gly Asp Phe Tyr Arg Ala Asp  
 1105 1110 1115 1120  
 Gln Pro Arg Ser Ala Pro Ser Leu Arg Pro Lys Asp Tyr Glu Val Asp  
 1125 1130 1135  
 Ala Thr Leu Lys Ser Leu Asn Asn Gln Ile Glu Thr Leu Leu Thr Pro  
 1140 1145 1150  
 Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu Arg Leu  
 1155 1160 1165  
 Ser His Pro Glu Trp Ser Ser Gly Tyr Tyr Trp Ile Asp Pro Asn Gln  
 1170 1175 1180  
 Gly Cys Thr Met Asp Ala Ile Lys Val Tyr Cys Asp Phe Ser Thr Gly  
 1185 1190 1195 1200  
 Glu Thr Cys Ile Arg Ala Gln Pro Glu Asn Ile Pro Ala Lys Asn Trp  
 1205 1210 1215  
 Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp Leu Gly Glu Thr Ile  
 1220 1225 1230  
 Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu Gly Val Thr Ser Lys  
 1235 1240 1245  
 Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu Leu Ala Asn Tyr Ala  
 1250 1255 1260  
 Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp  
 1265 1270 1275 1280  
 Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn  
 1285 1290 1295  
 Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val  
 1300 1305 1310  
 Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu Trp Gly Lys Thr Ile  
 1315 1320 1325  
 Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu Pro Phe Leu Asp Ile  
 1330 1335 1340  
 Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu Phe Phe Val Asp Ile  
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 Gly Pro Val Cys Phe Lys  
 1365

<210> 137

<211> 105

<212> PRT

<213> Homo sapiens

<400> 137

Met Ala Lys Ile Ser Ser Pro Thr Glu Thr Glu Arg Cys Ile Glu Ser  
 1 5 10 15  
 Leu Ile Ala Val Phe Gln Lys Tyr Ala Gly Lys Asp Gly Tyr Asn Tyr

			20					25					30				
Thr	Leu	Ser	Lys	Thr	Glu	Phe	Leu	Ser	Phe	Met	Asn	Thr	Glu	Leu	Ala		
		35					40					45					
Ala	Phe	Thr	Lys	Asn	Gln	Lys	Asp	Pro	Gly	Val	Leu	Asp	Arg	Met	Met		
	50					55					60						
Lys	Lys	Leu	Asp	Thr	Asn	Ser	Asp	Gly	Gln	Leu	Asp	Phe	Ser	Glu	Phe		
65					70					75					80		
Leu	Asn	Leu	Ile	Gly	Gly	Leu	Ala	Met	Ala	Cys	His	Asp	Ser	Phe	Leu		
			85						90					95			
Lys	Ala	Val	Pro	Ser	Gln	Lys	Arg	Thr									
			100					105									

<210> 138  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

Met	His	Lys	Glu	Glu	His	Glu	Val	Ala	Val	Leu	Gly	Ala	Pro	Pro	Ser		
1			5					10					15				
Thr	Ile	Leu	Pro	Arg	Ser	Thr	Val	Ile	Asn	Ile	His	Ser	Glu	Thr	Ser		
		20						25				30					
Val	Pro	Asp	His	Val	Val	Trp	Ser	Leu	Phe	Asn	Thr	Leu	Phe	Leu	Asn		
		35					40				45						
Trp	Cys	Cys	Leu	Gly	Phe	Ile	Ala	Phe	Ala	Tyr	Ser	Val	Lys	Ser	Arg		
	50					55				60							
Asp	Arg	Lys	Met	Val	Gly	Asp	Val	Thr	Gly	Ala	Gln	Ala	Tyr	Ala	Ser		
65				70					75						80		
Thr	Ala	Lys	Cys	Leu	Asn	Ile	Trp	Ala	Leu	Ile	Leu	Gly	Ile	Leu	Met		
			85					90					95				
Thr	Ile	Gly	Phe	Ile	Leu	Leu	Leu	Val	Phe	Gly	Ser	Val	Thr	Val	Tyr		
		100					105					110					
His	Ile	Met	Leu	Gln	Ile	Ile	Gln	Glu	Lys	Arg	Gly	Tyr					
		115					120					125					

<210> 139  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

Met	Ser	Glu	Ser	Gly	Phe	Lys	Leu	Leu	Cys	Gln	Cys	Leu	Gly	Phe	Gly		
1				5				10				15					
Ser	Gly	His	Phe	Arg	Cys	Asp	Ser	Ser	Arg	Trp	Cys	His	Asp	Asn	Gly		
		20						25				30					
Val	Asn	Tyr	Lys	Ile	Gly	Glu	Lys	Trp	Asp	Arg	Gln	Gly	Glu	Asn	Gly		
		35					40				45						
Gln	Met	Met	Ser	Cys	Thr	Cys	Leu	Gly	Asn	Gly	Lys	Gly	Glu	Phe	Lys		
	50					55				60							
Cys	Asp	Pro	His	Glu	Ala	Thr	Cys	Tyr	Asp	Asp	Gly	Lys	Thr	Tyr	His		
65				70					75						80		
Val	Gly	Glu	Gln	Trp	Gln	Lys	Glu	Tyr	Leu	Gly	Ala	Ile	Cys	Ser	Cys		
			85					90					95				
Thr	Cys	Phe	Gly	Gly	Gln	Arg	Gly	Trp	Arg	Cys	Asp	Asn	Cys	Arg	Arg		
			100				105					110					



Pro	Gly	Gly	Glu	Pro	Ser	Pro	Glu	Gly	Thr	Thr	Gly	Gln	Ser	Tyr	Asn
		115					120					125			
Gln	Tyr	Ser	Gln	Arg	Tyr	His	Gln	Arg	Thr	Asn	Thr	Asn	Val	Asn	Cys
	130					135					140				
Pro	Ile	Glu	Cys	Phe	Met	Pro	Leu	Asp	Val	Gln	Ala	Asp	Arg	Glu	Asp
145					150					155					160
Ser	Arg	Glu													

<210> 140  
 <211> 1466  
 <212> PRT  
 <213> Homo sapiens

<400> 140

Met	Met	Ser	Phe	Val	Gln	Lys	Gly	Ser	Trp	Leu	Leu	Leu	Ala	Leu	Leu
1				5					10					15	
His	Pro	Thr	Ile	Ile	Leu	Ala	Gln	Gln	Glu	Ala	Val	Glu	Gly	Gly	Cys
			20					25					30		
Ser	His	Leu	Gly	Gln	Ser	Tyr	Ala	Asp	Arg	Asp	Val	Trp	Lys	Pro	Glu
		35					40					45			
Pro	Cys	Gln	Ile	Cys	Val	Cys	Asp	Ser	Gly	Ser	Val	Leu	Cys	Asp	Asp
	50					55					60				
Ile	Ile	Cys	Asp	Asp	Gln	Glu	Leu	Asp	Cys	Pro	Asn	Pro	Glu	Ile	Pro
65					70					75					80
Phe	Gly	Glu	Cys	Cys	Ala	Val	Cys	Pro	Gln	Pro	Pro	Thr	Ala	Pro	Thr
				85					90					95	
Arg	Pro	Pro	Asn	Gly	Gln	Gly	Pro	Gln	Gly	Pro	Lys	Gly	Asp	Pro	Gly
			100					105					110		
Pro	Pro	Gly	Ile	Pro	Gly	Arg	Asn	Gly	Asp	Pro	Gly	Ile	Pro	Gly	Gln
		115					120					125			
Pro	Gly	Ser	Pro	Gly	Ser	Pro	Gly	Pro	Pro	Gly	Ile	Cys	Glu	Ser	Cys
	130					135					140				
Pro	Thr	Gly	Pro	Gln	Asn	Tyr	Ser	Pro	Gln	Tyr	Asp	Ser	Tyr	Asp	Val
145					150					155					160
Lys	Ser	Gly	Val	Ala	Val	Gly	Gly	Leu	Ala	Gly	Tyr	Pro	Gly	Pro	Ala
			165					170						175	
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Thr	Ser	Gly	His	Pro	Gly
			180					185					190		
Ser	Pro	Gly	Ser	Pro	Gly	Tyr	Gln	Gly	Pro	Pro	Gly	Glu	Pro	Gly	Gln
		195					200					205			
Ala	Gly	Pro	Ser	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ala	Ile	Gly	Pro	Ser
	210					215					220				
Gly	Pro	Ala	Gly	Lys	Asp	Gly	Glu	Ser	Gly	Arg	Pro	Gly	Arg	Pro	Gly
225					230					235					240
Glu	Arg	Gly	Leu	Pro	Gly	Pro	Pro	Gly	Ile	Lys	Gly	Pro	Ala	Gly	Ile
			245						250					255	
Pro	Gly	Phe	Pro	Gly	Met	Lys	Gly	His	Arg	Gly	Phe	Asp	Gly	Arg	Asn
		260						265					270		
Gly	Glu	Lys	Gly	Glu	Thr	Gly	Ala	Pro	Gly	Leu	Lys	Gly	Glu	Asn	Gly
		275					280						285		
Leu	Pro	Gly	Glu	Asn	Gly	Ala	Pro	Gly	Pro	Met	Gly	Pro	Arg	Gly	Ala
	290					295					300				
Pro	Gly	Glu	Arg	Gly	Arg	Pro	Gly	Leu	Pro	Gly	Ala	Ala	Gly	Ala	Arg
305					310					315					320
Gly	Asn	Asp	Gly	Ala	Arg	Gly	Ser	Asp	Gly	Gln	Pro	Gly	Pro	Pro	Gly

150

Pro Gly Leu Pro Gly Ile Ala Gly Pro Arg Gly Ser Pro Gly Glu Arg  
 785 790 795 800  
 Gly Glu Thr Gly Pro Pro Gly Pro Ala Gly Phe Pro Gly Ala Pro Gly  
 805 810 815  
 Gln Asn Gly Glu Pro Gly Gly Lys Gly Glu Arg Gly Ala Pro Gly Glu  
 820 825 830  
 Lys Gly Glu Gly Gly Pro Pro Gly Val Ala Gly Pro Pro Gly Gly Ser  
 835 840 845  
 Gly Pro Ala Gly Pro Pro Gly Pro Gln Gly Val Lys Gly Glu Arg Gly  
 850 855 860  
 Ser Pro Gly Gly Pro Gly Ala Ala Gly Phe Pro Gly Ala Arg Gly Leu  
 865 870 875 880  
 Pro Gly Pro Pro Gly Ser Asn Gly Asn Pro Gly Pro Pro Gly Pro Ser  
 885 890 895  
 Gly Ser Pro Gly Lys Asp Gly Pro Pro Gly Pro Ala Gly Asn Thr Gly  
 900 905 910  
 Ala Pro Gly Ser Pro Gly Val Ser Gly Pro Lys Gly Asp Ala Gly Gln  
 915 920 925  
 Pro Gly Glu Lys Gly Ser Pro Gly Ala Gln Gly Pro Pro Gly Ala Pro  
 930 935 940  
 Gly Pro Leu Gly Ile Ala Gly Ile Thr Gly Ala Arg Gly Leu Ala Gly  
 945 950 955 960  
 Pro Pro Gly Met Pro Gly Pro Arg Gly Ser Pro Gly Pro Gln Gly Val  
 965 970 975  
 Lys Gly Glu Ser Gly Lys Pro Gly Ala Asn Gly Leu Ser Gly Glu Arg  
 980 985 990  
 Gly Pro Pro Gly Pro Gln Gly Leu Pro Gly Leu Ala Gly Thr Ala Gly  
 995 1000 1005  
 Glu Pro Gly Arg Asp Gly Asn Pro Gly Ser Asp Gly Leu Pro Gly Arg  
 1010 1015 1020  
 Asp Gly Ser Pro Gly Gly Lys Gly Asp Arg Gly Glu Asn Gly Ser Pro  
 1025 1030 1035 1040  
 Gly Ala Pro Gly Ala Pro Gly His Pro Gly Pro Pro Gly Pro Val Gly  
 1045 1050 1055  
 Pro Ala Gly Lys Ser Gly Asp Arg Gly Glu Ser Gly Pro Ala Gly Pro  
 1060 1065 1070  
 Ala Gly Ala Pro Gly Pro Ala Gly Ser Arg Gly Ala Pro Gly Pro Gln  
 1075 1080 1085  
 Gly Pro Arg Gly Asp Lys Gly Glu Thr Gly Glu Arg Gly Ala Ala Gly  
 1090 1095 1100  
 Ile Lys Gly His Arg Gly Phe Pro Gly Asn Pro Gly Ala Pro Gly Ser  
 1105 1110 1115 1120  
 Pro Gly Pro Ala Gly Gln Gln Gly Ala Ile Gly Ser Pro Gly Pro Ala  
 1125 1130 1135  
 Gly Pro Arg Gly Pro Val Gly Pro Ser Gly Pro Pro Gly Lys Asp Gly  
 1140 1145 1150  
 Thr Ser Gly His Pro Gly Pro Ile Gly Pro Pro Gly Pro Arg Gly Asn  
 1155 1160 1165  
 Arg Gly Glu Arg Gly Ser Glu Gly Ser Pro Gly His Pro Gly Gln Pro  
 1170 1175 1180  
 Gly Pro Pro Gly Pro Pro Gly Ala Pro Gly Pro Cys Cys Gly Gly Val  
 1185 1190 1195 1200  
 Gly Ala Ala Ala Ile Ala Gly Ile Gly Gly Glu Lys Ala Gly Gly Phe  
 1205 1210 1215  
 Ala Pro Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp  
 1220 1225 1230  
 Glu Ile Met Thr Ser Leu Lys Ser Val Asn Gly Gln Ile Glu Ser Leu

1235	1240	1245
Ile Ser Pro Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg Asp		
1250	1255	1260
Leu Lys Phe Cys His Pro Glu Leu Lys Ser Gly Glu Tyr Trp Val Asp		
1265	1270	1275
Pro Asn Gln Gly Cys Lys Leu Asp Ala Ile Lys Val Phe Cys Asn Met		
1285	1290	1295
Glu Thr Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu Asn Val Pro Arg		
1300	1305	1310
Lys His Trp Trp Thr Asp Ser Ser Ala Glu Lys Lys His Val Trp Phe		
1315	1320	1325
Gly Glu Ser Met Asp Gly Gly Phe Gln Phe Ser Tyr Gly Asn Pro Glu		
1330	1335	1340
Leu Pro Glu Asp Val Leu Asp Val Gln Leu Ala Phe Leu Arg Leu Leu		
1345	1350	1355
Ser Ser Arg Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile		
1365	1370	1375
Ala Tyr Met Asp Gln Ala Ser Gly Asn Val Lys Lys Ala Leu Lys Leu		
1380	1385	1390
Met Gly Ser Asn Glu Gly Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe		
1395	1400	1405
Thr Tyr Thr Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp		
1410	1415	1420
Ser Lys Thr Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro		
1425	1430	1435
Ile Val Asp Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe		
1445	1450	1455
Gly Val Asp Val Gly Pro Val Cys Phe Leu		
1460	1465	

<210> 141  
 <211> 180  
 <212> PRT  
 <213> Homo sapiens

<400> 141

Met Lys Ser Ile Tyr Phe Val Ala Gly Leu Phe Val Met Leu Val Gln	
1 5 10 15	
Gly Ser Trp Gln Arg Ser Leu Gln Asp Thr Glu Glu Lys Ser Arg Ser	
20 25 30	
Phe Ser Ala Ser Gln Ala Asp Pro Leu Ser Asp Pro Asp Gln Met Asn	
35 40 45	
Glu Asp Lys Arg His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys	
50 55 60	
Tyr Leu Asp Ser Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn	
65 70 75 80	
Thr Lys Arg Asn Arg Asn Asn Ile Ala Lys Arg His Asp Glu Phe Glu	
85 90 95	
Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu	
100 105 110	
Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly	
115 120 125	
Arg Arg Asp Phe Pro Glu Glu Val Ala Ile Val Glu Glu Leu Gly Arg	
130 135 140	
Arg His Ala Asp Gly Ser Phe Ser Asp Glu Met Asn Thr Ile Leu Asp	
145 150 155 160	

Asn Leu Ala Ala Arg Asp Phe Ile Asn Trp Leu Ile Gln Thr Lys Ile  
165 170 175  
Thr Asp Arg Lys  
180

<210> 142

<211> 1064

<212> PRT

<213> Homo sapiens

<400> 142

Met Lys Ile Ala Thr Val Ser Val Leu Leu Pro Leu Ala Leu Cys Leu  
1 5 10 15  
Ile Gln Asp Ala Ala Ser Lys Asn Glu Asp Gln Glu Met Cys His Glu  
20 25 30  
Phe Gln Ala Phe Met Lys Asn Gly Lys Leu Phe Cys Pro Gln Asp Lys  
35 40 45  
Lys Phe Phe Gln Ser Leu Asp Gly Ile Met Phe Ile Asn Lys Cys Ala  
50 55 60  
Thr Cys Lys Met Ile Leu Glu Lys Glu Ala Lys Ser Gln Lys Arg Ala  
65 70 75 80  
Arg His Leu Ala Arg Ala Pro Lys Ala Thr Ala Pro Thr Glu Leu Asn  
85 90 95  
Cys Asp Asp Phe Lys Lys Gly Glu Arg Asp Gly Asp Phe Ile Cys Pro  
100 105 110  
Asp Tyr Tyr Glu Ala Val Cys Gly Thr Asp Gly Lys Thr Tyr Asp Asn  
115 120 125  
Arg Cys Ala Leu Cys Ala Glu Asn Ala Lys Thr Gly Ser Gln Ile Gly  
130 135 140  
Val Lys Ser Glu Gly Glu Cys Lys Ser Ser Asn Pro Glu Gln Asp Val  
145 150 155 160  
Cys Ser Ala Phe Arg Pro Phe Val Arg Asp Gly Arg Leu Gly Cys Thr  
165 170 175  
Arg Glu Asn Asp Pro Val Leu Gly Pro Asp Gly Lys Thr His Gly Asn  
180 185 190  
Lys Cys Ala Met Cys Ala Glu Leu Phe Leu Lys Glu Ala Glu Asn Ala  
195 200 205  
Lys Arg Glu Gly Glu Thr Arg Ile Arg Arg Asn Ala Glu Lys Asp Phe  
210 215 220  
Cys Lys Glu Tyr Glu Lys Gln Val Arg Asn Gly Arg Leu Phe Cys Thr  
225 230 235 240  
Arg Glu Ser Asp Pro Val Arg Gly Pro Asp Gly Arg Met His Gly Asn  
245 250 255  
Lys Cys Ala Leu Cys Ala Glu Ile Phe Lys Arg Arg Phe Ser Glu Glu  
260 265 270  
Asn Ser Lys Thr Asp Gln Asn Leu Gly Lys Ala Glu Glu Lys Thr Lys  
275 280 285  
Val Lys Arg Glu Ile Val Lys Leu Cys Ser Gln Tyr Gln Asn Gln Ala  
290 295 300  
Lys Asn Gly Ile Leu Phe Cys Thr Arg Glu Asn Asp Pro Ile Arg Gly  
305 310 315 320  
Pro Asp Gly Lys Met His Gly Asn Leu Cys Ser Met Cys Gln Val Tyr  
325 330 335  
Phe Gln Ala Glu Asn Glu Glu Lys Lys Lys Ala Glu Ala Arg Ala Arg  
340 345 350  
Asn Lys Arg Glu Ser Gly Lys Ala Thr Ser Tyr Ala Glu Leu Cys Asn



Glu	Ala	Ala	Glu	Lys	Lys	Lys	Lys	Glu	Asp	Glu	Asp	Arg	Ser	Asn	Thr
			820					825						830	
Gly	Glu	Arg	Ser	Asn	Thr	Gly	Glu	Arg	Ser	Asn	Asp	Lys	Glu	Asp	Leu
		835					840					845			
Cys	Arg	Glu	Phe	Arg	Ser	Met	Gln	Arg	Asn	Gly	Lys	Leu	Ile	Cys	Thr
	850					855					860				
Arg	Glu	Asn	Asn	Pro	Val	Arg	Gly	Pro	Tyr	Gly	Lys	Met	His	Ile	Asn
865					870					875					880
Lys	Cys	Ala	Met	Cys	Gln	Ser	Ile	Phe	Asp	Arg	Glu	Ala	Asn	Glu	Arg
			885						890					895	
Lys	Lys	Lys	Asp	Glu	Glu	Lys	Ser	Ser	Ser	Lys	Pro	Ser	Asn	Asn	Ala
			900					905					910		
Lys	Asp	Glu	Cys	Ser	Glu	Phe	Arg	Asn	Tyr	Ile	Arg	Asn	Asn	Glu	Leu
	915						920					925			
Ile	Cys	Pro	Arg	Glu	Asn	Asp	Pro	Val	His	Gly	Ala	Asp	Gly	Lys	Phe
	930					935					940				
Tyr	Thr	Asn	Lys	Cys	Tyr	Met	Cys	Arg	Ala	Val	Phe	Leu	Thr	Glu	Ala
945					950					955					960
Leu	Glu	Arg	Ala	Lys	Leu	Gln	Glu	Lys	Pro	Ser	His	Val	Arg	Ala	Ser
			965						970					975	
Gln	Glu	Glu	Asp	Ser	Pro	Asp	Ser	Phe	Ser	Ser	Leu	Asp	Ser	Glu	Met
			980					985					990		
Cys	Lys	Asp	Tyr	Arg	Val	Leu	Pro	Arg	Ile	Gly	Tyr	Leu	Cys	Pro	Lys
	995						1000					1005			
Asp	Leu	Lys	Pro	Val	Cys	Gly	Asp	Asp	Gly	Gln	Thr	Tyr	Asn	Asn	Pro
	1010					1015					1020				
Cys	Met	Leu	Cys	His	Glu	Asn	Leu	Ile	Arg	Gln	Thr	Asn	Thr	His	Ile
1025					1030					1035					1040
Arg	Ser	Thr	Gly	Lys	Cys	Glu	Glu	Ser	Ser	Thr	Pro	Gly	Thr	Thr	Ala
			1045						1050					1055	
Ala	Ser	Met	Pro	Pro	Ser	Asp	Glu								
			1060												

<210> 143  
 <211> 967  
 <212> PRT  
 <213> Homo sapiens

<400> 143															
Met	Ala	Lys	Gly	Phe	Tyr	Ile	Ser	Lys	Ser	Leu	Gly	Ile	Leu	Gly	Ile
1				5					10					15	
Leu	Leu	Gly	Val	Ala	Ala	Val	Cys	Thr	Ile	Ile	Ala	Leu	Ser	Val	Val
			20					25					30		
Tyr	Ser	Gln	Glu	Lys	Asn	Lys	Asn	Ala	Asn	Ser	Ser	Pro	Val	Ala	Ser
		35					40					45			
Thr	Thr	Pro	Ser	Ala	Ser	Ala	Thr	Thr	Asn	Pro	Ala	Ser	Ala	Thr	Thr
		50				55					60				
Leu	Asp	Gln	Ser	Lys	Ala	Trp	Asn	Arg	Tyr	Arg	Leu	Pro	Asn	Thr	Leu
65					70				75						80
Lys	Pro	Asp	Ser	Tyr	Gln	Val	Thr	Leu	Arg	Pro	Tyr	Leu	Thr	Pro	Asn
			85						90					95	
Asp	Arg	Gly	Leu	Tyr	Val	Phe	Lys	Gly	Ser	Ser	Thr	Val	Arg	Phe	Thr
		100						105					110		
Cys	Lys	Glu	Ala	Thr	Asp	Val	Ile	Ile	Ile	His	Ser	Lys	Lys	Leu	Asn
	115						120					125			
Tyr	Thr	Leu	Ser	Gln	Gly	His	Arg	Val	Val	Leu	Arg	Gly	Val	Gly	Gly

130		135		140
Ser Gln Pro Pro Asp Ile	Asp Lys Thr Glu Leu Val Glu Pro Thr Glu			
145		150		155
Tyr Leu Val Val His Leu Lys Gly Ser Leu Val Lys Asp Ser Gln Tyr				160
		165		170
Glu Met Asp Ser Glu Phe Glu Gly Glu Leu Ala Asp Asp Leu Ala Gly				175
		180		185
Phe Tyr Arg Ser Glu Tyr Met Glu Gly Asn Val Arg Lys Val Val Ala				190
		195		200
Thr Thr Gln Met Gln Ala Ala Asp Ala Arg Lys Ser Phe Pro Cys Phe				205
		210		215
Asp Glu Pro Ala Met Lys Ala Glu Phe Asn Ile Thr Leu Ile His Pro				220
225		230		235
Lys Asp Leu Thr Ala Leu Ser Asn Met Leu Pro Lys Gly Pro Ser Thr				240
		245		250
Pro Leu Pro Glu Asp Pro Asn Trp Asn Val Thr Glu Phe His Thr Thr				255
		260		265
Pro Lys Met Ser Thr Tyr Leu Leu Ala Phe Ile Val Ser Glu Phe Asp				270
		275		280
Tyr Val Glu Lys Gln Ala Ser Asn Gly Val Leu Ile Arg Ile Trp Ala				285
290		295		300
Arg Pro Ser Ala Ile Ala Ala Gly His Gly Asp Tyr Ala Leu Asn Val				305
		310		315
Thr Gly Pro Ile Leu Asn Phe Phe Ala Gly His Tyr Asp Thr Pro Tyr				320
		325		330
Pro Leu Pro Lys Ser Asp Gln Ile Gly Leu Pro Asp Phe Asn Ala Gly				335
		340		345
Ala Met Glu Asn Trp Gly Leu Val Thr Tyr Arg Glu Asn Ser Leu Leu				350
		355		360
Phe Asp Pro Leu Ser Ser Ser Ser Ser Asn Lys Glu Arg Val Val Thr				365
		370		375
Val Ile Ala His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr				380
385		390		395
Ile Glu Trp Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Ser Tyr				400
		405		410
Val Glu Tyr Leu Gly Ala Asp Tyr Ala Glu Pro Thr Trp Asn Leu Lys				415
		420		425
Asp Leu Met Val Leu Asn Asp Val Tyr Arg Val Met Ala Val Asp Ala				430
		435		440
Leu Ala Ser Ser His Pro Leu Ser Thr Pro Ala Ser Glu Ile Asn Thr				445
		450		455
Pro Ala Gln Ile Ser Glu Leu Phe Asp Ala Ile Ser Tyr Ser Lys Gly				460
465		470		475
Ala Ser Val Leu Arg Met Leu Ser Ser Phe Leu Ser Glu Asp Val Phe				480
		485		490
Lys Gln Gly Leu Ala Ser Tyr Leu His Thr Phe Ala Tyr Gln Asn Thr				495
		500		505
Ile Tyr Leu Asn Leu Trp Asp His Leu Gln Glu Ala Val Asn Asn Arg				510
		515		520
Ser Ile Gln Leu Pro Thr Thr Val Arg Asp Ile Met Asn Arg Trp Thr				525
		530		535
Leu Gln Met Gly Phe Pro Val Ile Thr Val Asp Thr Ser Thr Gly Thr				540
545		550		555
Leu Ser Gln Glu His Phe Leu Leu Asp Pro Asp Ser Asn Val Thr Arg				560
		565		570
Pro Ser Glu Phe Asn Tyr Val Trp Ile Val Pro Ile Thr Ser Ile Arg				575
		580		585
				590



Asp	Gly	Arg	Gln	Gln	Gln	Asp	Tyr	Trp	Leu	Ile	Asp	Val	Arg	Ala	Gln	
		595					600					605				
Asn	Asp	Leu	Phe	Ser	Thr	Ser	Gly	Asn	Glu	Trp	Val	Leu	Leu	Asn	Leu	
		610					615					620				
Asn	Val	Thr	Gly	Tyr	Tyr	Arg	Val	Asn	Tyr	Asp	Glu	Glu	Asn	Trp	Arg	
		625				630				635					640	
Lys	Ile	Gln	Thr	Gln	Leu	Gln	Arg	Asp	His	Ser	Ala	Ile	Pro	Val	Ile	
				645					650						655	
Asn	Arg	Ala	Gln	Ile	Ile	Asn	Asp	Ala	Phe	Asn	Leu	Ala	Ser	Ala	His	
			660					665						670		
Lys	Val	Pro	Val	Thr	Leu	Ala	Leu	Asn	Asn	Thr	Leu	Phe	Leu	Ile	Glu	
		675						680				685				
Glu	Arg	Gln	Tyr	Met	Pro	Trp	Glu	Ala	Ala	Leu	Ser	Ser	Leu	Ser	Tyr	
		690					695				700					
Phe	Lys	Leu	Met	Phe	Asp	Arg	Ser	Glu	Val	Tyr	Gly	Pro	Met	Lys	Asn	
		705			710					715					720	
Tyr	Leu	Lys	Lys	Gln	Val	Thr	Pro	Leu	Phe	Ile	His	Phe	Arg	Asn	Asn	
				725					730						735	
Thr	Asn	Asn	Trp	Arg	Glu	Ile	Pro	Glu	Asn	Leu	Met	Asp	Gln	Tyr	Ser	
			740					745					750			
Glu	Val	Asn	Ala	Ile	Ser	Thr	Ala	Cys	Ser	Asn	Gly	Val	Pro	Glu	Cys	
		755					760					765				
Glu	Glu	Met	Val	Ser	Gly	Leu	Phe	Lys	Gln	Trp	Met	Glu	Asn	Pro	Asn	
		770				775					780					
Asn	Asn	Pro	Ile	His	Pro	Asn	Leu	Arg	Ser	Thr	Val	Tyr	Cys	Asn	Ala	
		785			790					795					800	
Ile	Ala	Gln	Gly	Gly	Glu	Glu	Glu	Trp	Asp	Phe	Ala	Trp	Glu	Gln	Phe	
				805					810					815		
Arg	Asn	Ala	Thr	Leu	Val	Asn	Glu	Ala	Asp	Lys	Leu	Arg	Ala	Ala	Leu	
			820					825					830			
Ala	Cys	Ser	Lys	Glu	Leu	Trp	Ile	Leu	Asn	Arg	Tyr	Leu	Ser	Tyr	Thr	
		835					840					845				
Leu	Asn	Pro	Asp	Leu	Ile	Arg	Lys	Gln	Asp	Ala	Thr	Ser	Thr	Ile	Ile	
		850				855					860					
Ser	Ile	Thr	Asn	Asn	Val	Ile	Gly	Gln	Gly	Leu	Val	Trp	Asp	Phe	Val	
		865			870					875					880	
Gln	Ser	Asn	Trp	Lys	Lys	Leu	Phe	Asn	Asp	Tyr	Gly	Gly	Gly	Ser	Phe	
				885					890					895		
Ser	Phe	Ser	Asn	Leu	Ile	Gln	Ala	Val	Thr	Arg	Arg	Phe	Ser	Thr	Glu	
			900					905					910			
Tyr	Glu	Leu	Gln	Gln	Leu	Glu	Gln	Phe	Lys	Lys	Asp	Asn	Glu	Glu	Thr	
		915					920					925				
Gly	Phe	Gly	Ser	Gly	Thr	Arg	Ala	Leu	Glu	Gln	Ala	Leu	Glu	Lys	Thr	
		930				935					940					
Lys	Ala	Asn	Ile	Lys	Trp	Val	Lys	Glu	Asn	Lys	Glu	Val	Val	Leu	Gln	
		945			950					955					960	
Trp	Phe	Thr	Glu	Asn	Ser	Lys										
				965												

<210> 144

<211> 261

<212> PRT

<213> Homo sapiens

<400> 144

Met Ser Gly Glu Ile Ala Met Cys Glu Pro Glu Phe Gly Asn Asp Lys

1				5				10					15			
Ala	Arg	Glu	Pro	Ser	Val	Gly	Gly	Arg	Trp	Arg	Val	Ser	Trp	Tyr	Glu	
			20					25					30			
Arg	Phe	Val	Gln	Pro	Cys	Leu	Val	Glu	Leu	Leu	Gly	Ser	Ala	Leu	Phe	
		35					40					45				
Ile	Phe	Ile	Gly	Cys	Leu	Ser	Val	Ile	Glu	Asn	Gly	Thr	Asp	Thr	Gly	
	50					55					60					
Leu	Leu	Gln	Pro	Ala	Leu	Ala	His	Gly	Leu	Ala	Leu	Gly	Leu	Val	Ile	
65					70					75					80	
Ala	Thr	Leu	Gly	Asn	Ile	Ser	Gly	Gly	His	Phe	Asn	Pro	Ala	Val	Ser	
				85					90					95		
Leu	Ala	Ala	Met	Leu	Ile	Gly	Gly	Leu	Asn	Leu	Val	Met	Leu	Leu	Pro	
			100					105					110			
Tyr	Trp	Val	Ser	Gln	Leu	Leu	Gly	Gly	Met	Leu	Gly	Ala	Ala	Leu	Ala	
		115					120					125				
Lys	Val	Val	Ser	Pro	Glu	Glu	Arg	Phe	Trp	Asn	Ala	Ser	Gly	Ala	Ala	
	130					135					140					
Phe	Val	Thr	Val	Gln	Glu	Gln	Gly	Gln	Val	Ala	Gly	Ala	Leu	Val	Ala	
145					150					155					160	
Glu	Ile	Ile	Leu	Thr	Thr	Leu	Leu	Ala	Leu	Ala	Val	Cys	Met	Gly	Ala	
				165					170					175		
Ile	Asn	Glu	Lys	Thr	Lys	Gly	Pro	Leu	Ala	Pro	Phe	Ser	Ile	Gly	Phe	
		180						185					190			
Ala	Val	Thr	Val	Asp	Ile	Leu	Ala	Gly	Gly	Pro	Val	Ser	Gly	Gly	Cys	
		195					200					205				
Met	Asn	Pro	Ala	Arg	Ala	Phe	Gly	Pro	Ala	Val	Val	Ala	Asn	His	Trp	
	210					215					220					
Asn	Phe	His	Trp	Ile	Tyr	Trp	Leu	Gly	Pro	Leu	Leu	Ala	Gly	Leu	Leu	
225					230					235					240	
Val	Gly	Leu	Leu	Ile	Arg	Cys	Phe	Ile	Gly	Asp	Gly	Lys	Thr	Arg	Leu	
				245					250					255		
Ile	Leu	Lys	Ala	Arg												
			260													

<210> 145  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 145																
Met	Gly	Cys	Arg	Ala	Ala	Ser	Gly	Leu	Leu	Pro	Gly	Val	Ala	Val	Val	
1				5				10					15			
Leu	Leu	Leu	Leu	Leu	Gln	Ser	Thr	Gln	Ser	Val	Tyr	Ile	Gln	Tyr	Gln	
			20					25					30			
Gly	Phe	Arg	Val	Gln	Leu	Glu	Ser	Met	Lys	Lys	Leu	Ser	Asp	Leu	Glu	
		35					40					45				
Ala	Gln	Trp	Ala	Pro	Ser	Pro	Arg	Leu	Gln	Ala	Gln	Ser	Leu	Leu	Pro	
	50					55					60					
Ala	Val	Cys	His	His	Pro	Ala	Leu	Pro	Gln	Asp	Leu	Gln	Pro	Val	Cys	
65					70					75					80	
Ala	Ser	Gln	Glu	Ala	Ser	Ser	Ile	Phe	Lys	Thr	Leu	Arg	Thr	Ile	Ala	
				85					90					95		
Asn	Asp	Asp	Cys	Glu	Leu	Cys	Val	Asn	Val	Ala	Cys	Thr	Gly	Cys	Leu	
			100					105					110			

<210> 146  
 <211> 917  
 <212> PRT  
 <213> Homo sapiens

<400> 146  
 Met Gly Leu Phe Arg Gly Phe Val Phe Leu Leu Val Leu Cys Leu Leu  
 1 5 10 15  
 His Gln Ser Asn Thr Ser Phe Ile Lys Leu Asn Asn Asn Gly Phe Glu  
 20 25 30  
 Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp Glu Lys Ile  
 35 40 45  
 Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser Thr Tyr Leu Phe  
 50 55 60  
 Glu Ala Thr Glu Lys Arg Phe Phe Phe Lys Asn Val Ser Ile Leu Ile  
 65 70 75 80  
 Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr Lys Arg Pro Lys His Glu  
 85 90 95  
 Asn His Lys His Ala Asp Val Ile Val Ala Pro Pro Thr Leu Pro Gly  
 100 105 110  
 Arg Asp Glu Pro Tyr Thr Lys Gln Phe Thr Glu Cys Gly Glu Lys Gly  
 115 120 125  
 Glu Tyr Ile His Phe Thr Pro Asp Leu Leu Leu Gly Lys Lys Gln Asn  
 130 135 140  
 Glu Tyr Gly Pro Pro Gly Lys Leu Phe Val His Glu Trp Ala His Leu  
 145 150 155 160  
 Arg Trp Gly Val Phe Asp Glu Tyr Asn Glu Asp Gln Pro Phe Tyr Arg  
 165 170 175  
 Ala Lys Ser Lys Lys Ile Glu Ala Thr Arg Cys Ser Ala Gly Ile Ser  
 180 185 190  
 Gly Arg Asn Arg Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg  
 195 200 205  
 Ala Cys Arg Ile Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln  
 210 215 220  
 Phe Phe Pro Asp Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met  
 225 230 235 240  
 Gln Ser Ile Asp Ser Val Val Glu Phe Cys Asn Glu Lys Thr His Asn  
 245 250 255  
 Gln Glu Ala Pro Ser Leu Gln Asn Ile Lys Cys Asn Phe Arg Ser Thr  
 260 265 270  
 Trp Glu Val Ile Ser Asn Ser Glu Asp Phe Lys Asn Thr Ile Pro Met  
 275 280 285  
 Val Thr Pro Pro Pro Pro Pro Val Phe Ser Leu Leu Lys Ile Arg Gln  
 290 295 300  
 Arg Ile Val Cys Leu Val Leu Asp Lys Ser Gly Ser Met Gly Gly Lys  
 305 310 315 320  
 Asp Arg Leu Asn Arg Met Asn Gln Ala Ala Lys His Phe Leu Leu Gln  
 325 330 335  
 Thr Val Glu Asn Gly Ser Trp Val Gly Met Val His Phe Asp Ser Thr  
 340 345 350  
 Ala Thr Ile Val Asn Lys Leu Ile Gln Ile Lys Ser Ser Asp Glu Arg  
 355 360 365  
 Asn Thr Leu Met Ala Gly Leu Pro Thr Tyr Pro Leu Gly Gly Thr Ser  
 370 375 380  
 Ile Cys Ser Gly Ile Lys Tyr Ala Phe Gln Val Ile Gly Glu Leu His  
 385 390 395 400  
 Ser Gln Leu Asp Gly Ser Glu Val Leu Leu Leu Thr Asp Gly Glu Asp



Leu	Phe	Ile	Pro	Gln	Ala	Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr
865					870					875					880
Pro	Thr	Pro	Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser
				885					890					895	
Thr	Leu	Val	Leu	Ser	Val	Ile	Gly	Ser	Val	Val	Ile	Val	Asn	Phe	Ile
			900					905					910		
Leu	Ser	Thr	Thr	Ile											
			915												

<210> 147

<211> 437

<212> PRT

<213> Homo sapiens

<400> 147

Met	Ser	Ala	Val	Leu	Leu	Leu	Ala	Leu	Leu	Gly	Phe	Ile	Leu	Pro	Leu
1				5					10					15	
Pro	Gly	Val	Gln	Ala	Leu	Leu	Cys	Gln	Phe	Gly	Thr	Val	Gln	His	Val
			20					25					30		
Trp	Lys	Val	Ser	Asp	Leu	Pro	Arg	Gln	Trp	Thr	Pro	Lys	Asn	Thr	Ser
	35						40					45			
Cys	Asp	Ser	Gly	Leu	Gly	Cys	Gln	Asp	Thr	Leu	Met	Leu	Ile	Glu	Ser
	50					55					60				
Gly	Pro	Gln	Val	Ser	Leu	Val	Leu	Ser	Lys	Gly	Cys	Thr	Glu	Ala	Lys
65					70					75					80
Asp	Gln	Glu	Pro	Arg	Val	Thr	Glu	His	Arg	Met	Gly	Pro	Gly	Leu	Ser
				85					90					95	
Leu	Ile	Ser	Tyr	Thr	Phe	Val	Cys	Arg	Gln	Glu	Asp	Phe	Cys	Asn	Asn
			100					105					110		
Leu	Val	Asn	Ser	Leu	Pro	Leu	Trp	Ala	Pro	Gln	Pro	Pro	Ala	Asp	Pro
		115					120					125			
Gly	Ser	Leu	Arg	Cys	Pro	Val	Cys	Leu	Ser	Met	Glu	Gly	Cys	Leu	Glu
	130					135					140				
Gly	Thr	Thr	Glu	Glu	Ile	Cys	Pro	Lys	Gly	Thr	Thr	His	Cys	Tyr	Asp
145					150					155					160
Gly	Leu	Leu	Arg	Leu	Arg	Gly	Gly	Gly	Ile	Phe	Ser	Asn	Leu	Arg	Val
				165					170					175	
Gln	Gly	Cys	Met	Pro	Gln	Pro	Gly	Cys	Asn	Leu	Leu	Asn	Gly	Thr	Gln
			180					185					190		
Glu	Ile	Gly	Pro	Val	Gly	Met	Thr	Glu	Asn	Cys	Asn	Arg	Lys	Asp	Phe
		195					200					205			
Leu	Thr	Cys	His	Arg	Gly	Thr	Thr	Ile	Met	Thr	His	Gly	Asn	Leu	Ala
	210					215					220				
Gln	Glu	Pro	Thr	Asp	Trp	Thr	Thr	Ser	Asn	Thr	Glu	Met	Cys	Glu	Val
225					230					235					240
Gly	Gln	Val	Cys	Gln	Glu	Thr	Leu	Leu	Leu	Ile	Asp	Val	Gly	Leu	Thr
				245					250					255	
Ser	Thr	Leu	Val	Gly	Thr	Lys	Gly	Cys	Ser	Thr	Val	Gly	Ala	Gln	Asn
			260					265					270		
Ser	Gln	Lys	Thr	Thr	Ile	His	Ser	Ala	Pro	Pro	Gly	Val	Leu	Val	Ala
		275					280					285			
Ser	Tyr	Thr	His	Phe	Cys	Ser	Ser	Asp	Leu	Cys	Asn	Ser	Ala	Ser	Ser
	290					295					300				
Ser	Ser	Val	Leu	Leu	Asn	Ser	Leu	Pro	Pro	Gln	Ala	Ala	Pro	Val	Pro
305					310					315					320
Gly	Asp	Arg	Gln	Cys	Pro	Thr	Cys	Val	Gln	Pro	Leu	Gly	Thr	Cys	Ser

				325					330					335			
Ser	Gly	Ser	Pro	Arg	Met	Thr	Cys	Pro	Arg	Gly	Ala	Thr	His	Cys	Tyr		
			340					345					350				
Asp	Gly	Tyr	Ile	His	Leu	Ser	Gly	Gly	Gly	Leu	Ser	Thr	Lys	Met	Ser		
		355					360					365					
Ile	Gln	Gly	Cys	Val	Ala	Gln	Pro	Ser	Ser	Phe	Leu	Leu	Asn	His	Thr		
	370					375					380						
Arg	Gln	Ile	Gly	Ile	Phe	Ser	Ala	Arg	Glu	Lys	Arg	Asp	Val	Gln	Pro		
385					390				395						400		
Pro	Ala	Ser	Gln	His	Glu	Gly	Gly	Gly	Ala	Glu	Gly	Leu	Glu	Ser	Leu		
			405					410						415			
Thr	Trp	Gly	Val	Gly	Leu	Ala	Leu	Ala	Pro	Ala	Leu	Trp	Trp	Gly	Val		
		420					425					430					
Val	Cys	Pro	Ser	Cys													
		435															

<210> 148  
 <211> 452  
 <212> PRT  
 <213> Homo sapiens

<400> 148																	
Met	Leu	Cys	Gly	Arg	Pro	Arg	Ser	Ser	Ser	Asp	Asn	Arg	Asn	Phe	Leu		
1				5					10					15			
Arg	Glu	Arg	Ala	Gly	Leu	Ser	Ser	Ala	Val	Gln	Thr	Arg	Ile	Gly			
			20					25				30					
Asn	Ser	Ala	Ala	Ser	Arg	Arg	Ser	Pro	Ala	Ala	Arg	Pro	Pro	Val	Pro		
		35					40				45						
Ala	Pro	Pro	Ala	Leu	Pro	Arg	Gly	Arg	Pro	Gly	Thr	Glu	Gly	Ser	Thr		
	50					55				60							
Ser	Leu	Ser	Ala	Pro	Ala	Val	Leu	Val	Val	Ala	Val	Ala	Val	Val	Val		
65				70					75						80		
Val	Val	Val	Ser	Ala	Val	Ala	Trp	Ala	Met	Ala	Asn	Tyr	Ile	His	Val		
			85					90					95				
Pro	Pro	Gly	Ser	Pro	Glu	Val	Pro	Lys	Leu	Asn	Val	Thr	Val	Gln	Asp		
		100					105				110						
Gln	Glu	Glu	His	Arg	Cys	Arg	Glu	Gly	Ala	Leu	Ser	Leu	Leu	Gln	His		
	115					120					125						
Leu	Arg	Pro	His	Trp	Asp	Pro	Gln	Glu	Val	Thr	Leu	Gln	Leu	Phe	Thr		
	130				135					140							
Asp	Gly	Ile	Thr	Asn	Lys	Leu	Ile	Gly	Cys	Tyr	Val	Gly	Asn	Thr	Met		
145				150					155						160		
Glu	Asp	Val	Val	Leu	Val	Arg	Ile	Tyr	Gly	Asn	Lys	Thr	Glu	Leu	Leu		
			165					170					175				
Val	Asp	Arg	Asp	Glu	Glu	Val	Lys	Ser	Phe	Arg	Val	Leu	Gln	Ala	His		
		180					185					190					
Gly	Cys	Ala	Pro	Gln	Leu	Tyr	Cys	Thr	Phe	Asn	Asn	Gly	Leu	Cys	Tyr		
	195					200						205					
Glu	Phe	Ile	Gln	Gly	Glu	Ala	Leu	Asp	Pro	Lys	His	Val	Cys	Asn	Pro		
	210				215					220							
Ala	Ile	Phe	Arg	Leu	Ile	Ala	Arg	Gln	Leu	Ala	Lys	Ile	His	Ala	Ile		
225				230				235						240			
His	Ala	His	Asn	Gly	Trp	Ile	Pro	Lys	Ser	Asn	Leu	Trp	Leu	Lys	Met		
		245					250					255					
Gly	Lys	Tyr	Phe	Ser	Leu	Ile	Pro	Thr	Gly	Phe	Ala	Asp	Glu	Asp	Ile		
		260					265					270					

Asn	Lys	Arg	Phe	Leu	Ser	Asp	Ile	Pro	Ser	Ser	Gln	Ile	Leu	Gln	Glu
		275					280				285				
Glu	Met	Thr	Trp	Met	Lys	Glu	Ile	Leu	Ser	Asn	Leu	Gly	Ser	Pro	Val
	290					295				300					
Val	Leu	Cys	His	Asn	Asp	Leu	Leu	Cys	Lys	Asn	Ile	Ile	Tyr	Asn	Glu
305				310						315				320	
Lys	Gln	Gly	Asp	Val	Gln	Phe	Ile	Asp	Tyr	Glu	Tyr	Ser	Gly	Tyr	Asn
			325					330						335	
Tyr	Leu	Ala	Tyr	Asp	Ile	Gly	Asn	His	Phe	Asn	Glu	Phe	Ala	Gly	Val
		340					345						350		
Ser	Asp	Val	Asp	Tyr	Ser	Leu	Tyr	Pro	Asp	Arg	Glu	Leu	Gln	Ser	Gln
		355				360					365				
Trp	Leu	Arg	Ala	Tyr	Leu	Glu	Ala	Tyr	Lys	Glu	Phe	Lys	Gly	Phe	Gly
	370					375				380					
Thr	Glu	Val	Thr	Glu	Lys	Glu	Val	Glu	Ile	Leu	Phe	Ile	Gln	Val	Asn
385				390						395				400	
Gln	Phe	Ala	Leu	Ala	Ser	His	Phe	Phe	Trp	Gly	Leu	Trp	Ala	Leu	Ile
			405					410						415	
Gln	Ala	Lys	Tyr	Ser	Thr	Ile	Glu	Phe	Asp	Phe	Leu	Gly	Tyr	Ala	Ile
		420					425					430			
Val	Arg	Phe	Asn	Gln	Tyr	Phe	Lys	Met	Lys	Pro	Glu	Val	Thr	Ala	Leu
		435				440					445				
Lys	Val	Pro	Glu												
	450														

<210> 149

<211> 192

<212> PRT

<213> Homo sapiens

<400> 149

Met	Gly	Ser	Leu	Gly	Ser	Lys	Asn	Pro	Gln	Thr	Lys	Gln	Ala	Gln	Val
1			5					10					15		
Leu	Leu	Leu	Gly	Leu	Asp	Ser	Ala	Gly	Lys	Ser	Thr	Leu	Leu	Tyr	Lys
		20				25						30			
Leu	Lys	Leu	Ala	Lys	Asp	Ile	Thr	Thr	Ile	Pro	Thr	Ile	Gly	Phe	Asn
	35				40						45				
Val	Glu	Met	Ile	Glu	Leu	Glu	Arg	Asn	Leu	Ser	Leu	Thr	Val	Trp	Asp
	50				55				60						
Val	Gly	Gly	Gln	Glu	Lys	Met	Arg	Thr	Val	Trp	Gly	Cys	Tyr	Cys	Glu
65				70				75						80	
Asn	Thr	Asp	Gly	Leu	Val	Tyr	Val	Val	Asp	Ser	Thr	Asp	Lys	Gln	Arg
		85						90					95		
Leu	Glu	Glu	Ser	Gln	Arg	Gln	Phe	Glu	His	Ile	Leu	Lys	Asn	Glu	His
		100				105							110		
Ile	Lys	Asn	Val	Pro	Val	Val	Leu	Leu	Ala	Asn	Lys	Gln	Asp	Met	Pro
	115					120						125			
Gly	Ala	Leu	Thr	Ala	Glu	Asp	Ile	Thr	Arg	Met	Phe	Lys	Val	Lys	Lys
	130				135				140						
Leu	Cys	Ser	Asp	Arg	Asn	Trp	Tyr	Val	Gln	Pro	Cys	Cys	Ala	Leu	Thr
145				150				155						160	
Gly	Glu	Gly	Leu	Ala	Gln	Gly	Phe	Arg	Lys	Leu	Thr	Gly	Phe	Val	Lys
			165					170					175		
Ser	His	Met	Lys	Ser	Arg	Gly	Asp	Thr	Leu	Ala	Phe	Phe	Lys	Gln	Asn
		180					185						190		

<210> 150  
 <211> 530  
 <212> PRT  
 <213> Homo sapiens

<400> 150  
 Met Ser Leu Lys Trp Thr Ser Val Phe Leu Leu Ile Gln Leu Ser Cys  
 1 5 10 15  
 Tyr Phe Ser Ser Gly Ser Cys Gly Lys Val Leu Val Trp Pro Thr Glu  
 20 25 30  
 Tyr Ser His Trp Ile Asn Met Lys Thr Ile Leu Glu Glu Leu Val Gln  
 35 40 45  
 Arg Gly His Glu Val Thr Val Leu Thr Ser Ser Ala Ser Thr Leu Val  
 50 55 60  
 Asn Ala Ser Lys Ser Ser Ala Ile Lys Leu Glu Val Tyr Pro Thr Ser  
 65 70 75 80  
 Leu Thr Lys Asn Asp Leu Glu Asp Ser Leu Leu Lys Ile Leu Asp Arg  
 85 90 95  
 Trp Ile Tyr Gly Val Ser Lys Asn Thr Phe Trp Ser Tyr Phe Ser Gln  
 100 105 110  
 Leu Gln Glu Leu Cys Trp Glu Tyr Tyr Asp Tyr Ser Asn Lys Leu Cys  
 115 120 125  
 Lys Asp Ala Val Leu Asn Lys Lys Leu Met Met Lys Leu Gln Glu Ser  
 130 135 140  
 Lys Phe Asp Val Ile Leu Ala Asp Ala Leu Asn Pro Cys Gly Glu Leu  
 145 150 155 160  
 Leu Ala Glu Leu Phe Asn Ile Pro Phe Leu Tyr Ser Leu Arg Phe Ser  
 165 170 175  
 Val Gly Tyr Thr Phe Glu Lys Asn Gly Gly Gly Phe Leu Phe Pro Pro  
 180 185 190  
 Ser Tyr Val Pro Val Val Met Ser Glu Leu Ser Asp Gln Met Ile Phe  
 195 200 205  
 Met Glu Arg Ile Lys Asn Met Ile His Met Leu Tyr Phe Asp Phe Trp  
 210 215 220  
 Phe Gln Ile Tyr Asp Leu Lys Lys Trp Asp Gln Phe Tyr Ser Glu Val  
 225 230 235 240  
 Leu Gly Arg Pro Thr Thr Leu Phe Glu Thr Met Gly Lys Ala Glu Met  
 245 250 255  
 Trp Leu Ile Arg Thr Tyr Trp Asp Phe Glu Phe Pro Arg Pro Phe Leu  
 260 265 270  
 Pro Asn Val Asp Phe Val Gly Gly Leu His Cys Lys Pro Ala Lys Pro  
 275 280 285  
 Leu Pro Lys Glu Met Glu Glu Phe Val Gln Ser Ser Gly Glu Asn Gly  
 290 295 300  
 Ile Val Val Phe Ser Leu Gly Ser Met Ile Ser Asn Met Ser Glu Glu  
 305 310 315 320  
 Ser Ala Asn Met Ile Ala Ser Ala Leu Ala Gln Ile Pro Gln Lys Val  
 325 330 335  
 Leu Trp Arg Phe Asp Gly Lys Lys Pro Asn Thr Leu Gly Ser Asn Thr  
 340 345 350  
 Arg Leu Tyr Lys Trp Leu Pro Gln Asn Asp Leu Leu Gly His Pro Lys  
 355 360 365  
 Thr Lys Ala Phe Ile Thr His Gly Gly Thr Asn Gly Ile Tyr Glu Ala  
 370 375 380  
 Ile Tyr His Gly Ile Pro Met Val Gly Ile Pro Leu Phe Ala Asp Gln  
 385 390 395 400



His Asp Asn Ile Ala His Met Lys Ala Lys Gly Ala Ala Leu Ser Val  
 405 410 415  
 Asp Ile Arg Thr Met Ser Ser Arg Asp Leu Leu Asn Ala Leu Lys Ser  
 420 425 430  
 Val Ile Asn Asp Pro Val Tyr Lys Glu Asn Val Met Lys Leu Ser Arg  
 435 440 445  
 Ile His His Asp Gln Pro Met Lys Pro Leu Asp Arg Ala Val Phe Trp  
 450 455 460  
 Ile Glu Phe Val Met Arg His Lys Gly Ala Lys His Leu Arg Val Ala  
 465 470 475 480  
 Ala His Asn Leu Thr Trp Ile Gln Tyr His Ser Leu Asp Val Ile Ala  
 485 490 495  
 Phe Leu Leu Ala Cys Val Ala Thr Val Ile Phe Ile Ile Thr Lys Phe  
 500 505 510  
 Cys Leu Phe Cys Phe Arg Lys Leu Ala Lys Thr Gly Lys Lys Lys Lys  
 515 520 525  
 Arg Asp  
 530

<210> 151  
 <211> 265  
 <212> PRT  
 <213> Homo sapiens

<400> 151  
 Met Gly Ser Pro Ser Ala Cys Pro Tyr Arg Val Cys Ile Pro Trp Gln  
 1 5 10 15  
 Gly Leu Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Leu Pro Asn  
 20 25 30  
 Ser Ala Gln Thr Asn Ile Asp Val Val Pro Phe Asn Val Ala Glu Gly  
 35 40 45  
 Lys Glu Val Leu Leu Val Val His Asn Glu Ser Gln Asn Leu Tyr Gly  
 50 55 60  
 Tyr Asn Trp Tyr Lys Gly Glu Arg Val His Ala Asn Tyr Arg Ile Ile  
 65 70 75 80  
 Gly Tyr Val Lys Asn Ile Ser Gln Glu Asn Ala Pro Gly Pro Ala His  
 85 90 95  
 Asn Gly Arg Glu Thr Ile Tyr Pro Asn Gly Thr Leu Leu Ile Gln Asn  
 100 105 110  
 Val Thr His Asn Asp Ala Gly Phe Tyr Thr Leu His Val Ile Lys Glu  
 115 120 125  
 Asn Leu Val Asn Glu Glu Val Thr Arg Gln Phe Tyr Val Phe Ser Glu  
 130 135 140  
 Pro Pro Lys Pro Ser Ile Thr Ser Asn Asn Phe Asn Pro Val Glu Asn  
 145 150 155 160  
 Lys Asp Ile Val Val Leu Thr Cys Gln Pro Glu Thr Gln Asn Thr Thr  
 165 170 175  
 Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Leu Val Ser Pro Arg Leu  
 180 185 190  
 Leu Leu Ser Thr Asp Asn Arg Thr Leu Val Leu Leu Ser Ala Thr Lys  
 195 200 205  
 Asn Asp Ile Gly Pro Tyr Glu Cys Glu Ile Gln Asn Pro Val Gly Ala  
 210 215 220  
 Ser Arg Ser Asp Pro Val Thr Leu Asn Val Arg Tyr Glu Ser Val Gln  
 225 230 235 240  
 Ala Ser Ser Pro Asp Leu Ser Ala Gly Thr Ala Val Ser Ile Met Ile

				245				250						255
Gly	Val	Leu	Ala	Gly	Met	Ala	Leu	Ile						
			260					265						

<210> 152  
 <211> 457  
 <212> PRT  
 <213> Homo sapiens

<400> 152

Met	Arg	Ser	Ala	Ala	Val	Leu	Ala	Leu	Leu	Leu	Cys	Ala	Gly	Gln	Val
1				5					10					15	
Thr	Ala	Leu	Pro	Val	Asn	Ser	Pro	Met	Asn	Lys	Gly	Asp	Thr	Glu	Val
			20					25					30		
Met	Lys	Cys	Ile	Val	Glu	Val	Ile	Ser	Asp	Thr	Leu	Ser	Lys	Pro	Ser
		35					40					45			
Pro	Met	Pro	Val	Ser	Gln	Glu	Cys	Phe	Glu	Thr	Leu	Arg	Gly	Asp	Glu
		50				55					60				
Arg	Ile	Leu	Ser	Ile	Leu	Arg	His	Gln	Asn	Leu	Leu	Lys	Glu	Leu	Gln
65					70				75					80	
Asp	Leu	Ala	Leu	Gln	Gly	Ala	Lys	Glu	Arg	Ala	His	Gln	Gln	Lys	Lys
				85					90					95	
His	Ser	Gly	Phe	Glu	Asp	Glu	Leu	Ser	Glu	Val	Leu	Glu	Asn	Gln	Ser
			100					105					110		
Ser	Gln	Ala	Glu	Leu	Lys	Glu	Ala	Val	Glu	Glu	Pro	Ser	Ser	Lys	Asp
		115					120				125				
Val	Met	Glu	Lys	Arg	Glu	Asp	Ser	Lys	Glu	Ala	Glu	Lys	Ser	Gly	Glu
		130				135					140				
Ala	Thr	Asp	Gly	Ala	Arg	Pro	Gln	Ala	Leu	Pro	Glu	Pro	Met	Gln	Glu
145					150					155				160	
Ser	Lys	Ala	Glu	Gly	Asn	Asn	Gln	Ala	Pro	Gly	Glu	Glu	Glu	Glu	Glu
				165					170					175	
Glu	Glu	Glu	Ala	Thr	Asn	Thr	His	Pro	Pro	Ala	Ser	Leu	Pro	Ser	Gln
			180					185					190		
Lys	Tyr	Pro	Gly	Pro	Gln	Ala	Glu	Gly	Asp	Ser	Glu	Gly	Leu	Ser	Gln
		195					200					205			
Gly	Leu	Val	Asp	Arg	Glu	Lys	Gly	Leu	Ser	Ala	Glu	Pro	Gly	Trp	Gln
	210					215					220				
Ala	Lys	Arg	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Ala	Glu	Ala	Gly	
225					230				235					240	
Glu	Glu	Ala	Val	Pro	Glu	Glu	Glu	Gly	Pro	Thr	Val	Val	Leu	Asn	Pro
				245					250					255	
His	Pro	Ser	Leu	Gly	Tyr	Lys	Glu	Ile	Arg	Lys	Gly	Glu	Ser	Arg	Ser
			260					265					270		
Glu	Ala	Leu	Ala	Val	Asp	Gly	Ala	Gly	Lys	Pro	Gly	Ala	Glu	Glu	Ala
			275				280					285			
Gln	Asp	Pro	Glu	Gly	Lys	Gly	Glu	Gln	Glu	His	Ser	Gln	Gln	Lys	Glu
	290					295					300				
Glu	Glu	Glu	Glu	Met	Ala	Val	Val	Pro	Gln	Gly	Leu	Phe	Arg	Gly	Gly
305					310					315				320	
Lys	Ser	Gly	Glu	Leu	Glu	Gln	Glu	Glu	Glu	Arg	Leu	Ser	Lys	Glu	Trp
				325					330					335	
Glu	Asp	Ser	Lys	Arg	Trp	Ser	Lys	Met	Asp	Gln	Leu	Ala	Lys	Glu	Leu
			340				345						350		
Thr	Ala	Glu	Lys	Arg	Leu	Glu	Gly	Gln	Glu	Glu	Glu	Glu	Asp	Asn	Arg
		355					360						365		

Asp	Ser	Ser	Met	Lys	Leu	Ser	Phe	Arg	Ala	Arg	Ala	Tyr	Gly	Phe	Arg
370						375					380				
Gly	Pro	Gly	Pro	Gln	Leu	Arg	Arg	Gly	Trp	Arg	Pro	Ser	Ser	Arg	Glu
385					390					395					400
Asp	Ser	Leu	Glu	Ala	Gly	Leu	Pro	Leu	Gln	Val	Arg	Gly	Tyr	Pro	Glu
				405					410					415	
Glu	Lys	Lys	Glu	Glu	Glu	Gly	Ser	Ala	Asn	Arg	Arg	Pro	Glu	Asp	Gln
			420					425					430		
Glu	Leu	Glu	Ser	Leu	Ser	Ala	Ile	Glu	Ala	Glu	Leu	Glu	Lys	Val	Ala
		435					440					445			
His	Gln	Leu	Gln	Ala	Leu	Arg	Arg	Gly							
450						455									

<210> 153  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

Met	His	Val	Asn	Gly	Lys	Val	Ala	Leu	Val	Thr	Gly	Ala	Ala	Gln	Gly
1			5						10					15	
Ile	Gly	Arg	Ala	Phe	Ala	Glu	Ala	Leu	Leu	Leu	Lys	Gly	Ala	Lys	Val
			20					25					30		
Ala	Leu	Val	Asp	Trp	Asn	Leu	Glu	Ala	Gly	Val	Gln	Cys	Lys	Ala	Ala
		35					40					45			
Leu	His	Glu	Gln	Phe	Glu	Pro	Gln	Lys	Thr	Leu	Phe	Ile	Gln	Cys	Asp
		50				55					60				
Val	Ala	Asp	Gln	Gln	Gln	Leu	Arg	Asp	Thr	Phe	Arg	Lys	Val	Val	Asp
65					70					75					80
His	Phe	Gly	Arg	Leu	Asp	Ile	Leu	Val	Asn	Asn	Ala	Gly	Val	Asn	Asn
				85					90					95	
Glu	Lys	Asn	Trp	Glu	Lys	Thr	Leu	Gln	Ile	Asn	Leu	Val	Ser	Val	Ile
			100					105					110		
Ser	Gly	Thr	Tyr	Leu	Gly	Leu	Asp	Tyr	Met	Ser	Lys	Gln	Asn	Gly	Gly
		115					120					125			
Glu	Gly	Gly	Ile	Ile	Ile	Asn	Met	Ser	Ser	Leu	Ala	Gly	Leu	Met	Pro
		130				135					140				
Val	Ala	Gln	Gln	Pro	Val	Tyr	Cys	Ala	Ser	Lys	His	Gly	Ile	Val	Gly
145					150					155					160
Phe	Thr	Arg	Ser	Ala	Ala	Leu	Ala	Ala	Asn	Leu	Met	Asn	Ser	Gly	Val
				165					170					175	
Arg	Leu	Asn	Ala	Ile	Cys	Pro	Gly	Phe	Val	Asn	Thr	Ala	Ile	Leu	Glu
			180					185					190		
Ser	Ile	Glu	Lys	Glu	Glu	Asn	Met	Gly	Gln	Tyr	Ile	Glu	Tyr	Lys	Asp
		195					200					205			
His	Ile	Lys	Asp	Met	Ile	Lys	Tyr	Tyr	Gly	Ile	Leu	Asp	Pro	Pro	Leu
	210					215					220				
Ile	Ala	Asn	Gly	Leu	Ile	Thr	Leu	Ile	Glu	Asp	Asp	Ala	Leu	Asn	Gly
225					230					235					240
Ala	Ile	Met	Lys	Ile	Thr	Thr	Ser	Lys	Gly	Ile	His	Phe	Gln	Asp	Tyr
				245					250					255	
Asp	Thr	Thr	Pro	Phe	Gln	Ala	Lys	Thr	Gln						
			260					265							

<210> 154

<211> 181  
 <212> PRT  
 <213> Homo sapiens

<400> 154

Met	Phe	Ser	Ala	Ile	Arg	Ser	Gln	His	Ser	Gly	Val	Asp	Ile	Cys	Ile
1				5					10					15	
Asn	Asn	Ala	Gly	Leu	Ala	Arg	Pro	Asp	Thr	Leu	Leu	Ser	Gly	Ser	Thr
			20					25					30		
Ser	Gly	Trp	Lys	Asp	Met	Phe	Asn	Val	Asn	Val	Leu	Ala	Leu	Ser	Ile
			35				40					45			
Cys	Thr	Arg	Glu	Ala	Tyr	Gln	Ser	Met	Lys	Glu	Arg	Asn	Val	Asp	Asp
	50					55					60				
Gly	His	Ile	Ile	Asn	Ile	Asn	Ser	Met	Ser	Gly	His	Arg	Val	Leu	Pro
65					70					75				80	
Leu	Ser	Val	Thr	His	Phe	Tyr	Ser	Ala	Thr	Lys	Tyr	Ala	Val	Thr	Ala
				85					90					95	
Leu	Thr	Glu	Gly	Leu	Arg	Gln	Glu	Leu	Arg	Glu	Ala	Gln	Thr	His	Ile
			100					105					110		
Arg	Ala	Thr	Cys	Ile	Ser	Pro	Gly	Val	Val	Glu	Thr	Gln	Phe	Ala	Phe
		115					120					125			
Lys	Leu	His	Asp	Lys	Asp	Pro	Glu	Lys	Ala	Ala	Ala	Thr	Tyr	Glu	Gln
	130					135					140				
Met	Lys	Cys	Leu	Lys	Pro	Glu	Asp	Val	Ala	Glu	Ala	Val	Ile	Tyr	Val
145					150					155				160	
Leu	Ser	Thr	Pro	Ala	His	Ile	Gln	Ile	Gly	Asp	Ile	Gln	Met	Arg	Pro
				165					170					175	
Thr	Glu	Gln	Val	Thr											
				180											

<210> 155  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 155

Met	Arg	Met	Leu	Leu	Ala	Leu	Leu	Ala	Leu	Ser	Ala	Ala	Arg	Pro	Ser
1				5					10					15	
Ala	Ser	Ala	Glu	Ser	His	Trp	Cys	Tyr	Glu	Val	Gln	Ala	Glu	Ser	Ser
			20					25					30		
Asn	Tyr	Pro	Cys	Leu	Val	Pro	Val	Lys	Trp	Gly	Gly	Asn	Cys	Gln	Lys
		35					40					45			
Asp	Arg	Gln	Ser	Pro	Ile	Asn	Ile	Val	Thr	Thr	Lys	Ala	Lys	Val	Asp
	50					55					60				
Lys	Lys	Leu	Gly	Arg	Phe	Phe	Phe	Ser	Gly	Tyr	Asp	Lys	Lys	Gln	Thr
65					70					75				80	
Trp	Thr	Val	Gln	Asn	Asn	Gly	His	Ser	Val	Met	Met	Leu	Leu	Glu	Asn
				85					90					95	
Lys	Ala	Ser	Ile	Ser	Gly	Gly	Gly	Leu	Pro	Ala	Pro	Tyr	Gln	Ala	Lys
			100					105					110		
Gln	Leu	His	Leu	His	Trp	Ser	Asp	Leu	Pro	Tyr	Lys	Gly	Ser	Glu	His
		115					120					125			
Ser	Leu	Asp	Gly	Glu	His	Phe	Ala	Met	Glu	Met	His	Ile	Val	His	Glu
	130					135					140				
Lys	Glu	Lys	Gly	Thr	Ser	Arg	Asn	Val	Lys	Glu	Ala	Gln	Asp	Pro	Glu
145					150					155				160	

Asp	Glu	Ile	Ala	Val	Leu	Ala	Phe	Leu	Val	Glu	Ala	Gly	Thr	Gln	Val
			165						170					175	
Asn	Glu	Gly	Phe	Gln	Pro	Leu	Val	Glu	Ala	Leu	Ser	Asn	Ile	Pro	Lys
			180					185					190		
Pro	Glu	Met	Ser	Thr	Thr	Met	Ala	Glu	Ser	Ser	Leu	Leu	Asp	Leu	Leu
		195					200					205			
Pro	Lys	Glu	Glu	Lys	Leu	Arg	His	Tyr	Phe	Arg	Tyr	Leu	Gly	Ser	Leu
	210					215					220				
Thr	Thr	Pro	Thr	Cys	Asp	Glu	Lys	Val	Val	Trp	Thr	Val	Phe	Arg	Glu
225					230					235					240
Pro	Ile	Gln	Leu	His	Arg	Glu	Gln	Ile	Leu	Ala	Phe	Ser	Gln	Lys	Leu
				245					250					255	
Tyr	Tyr	Asp	Lys	Glu	Gln	Thr	Val	Ser	Met	Lys	Asp	Asn	Val	Arg	Pro
		260						265					270		
Leu	Gln	Gln	Leu	Gly	Gln	Arg	Thr	Val	Ile	Lys	Ser	Gly	Ala	Pro	Gly
		275					280					285			
Arg	Pro	Leu	Pro	Trp	Ala	Leu	Pro	Ala	Leu	Leu	Gly	Pro	Met	Leu	Ala
	290					295					300				
Cys	Leu	Leu	Ala	Gly	Phe	Leu	Arg								
305						310									

<210> 156

<211> 398

<212> PRT

<213> Homo sapiens

<400> 156

Met	Leu	Arg	Leu	Tyr	Val	Leu	Val	Met	Gly	Val	Ser	Ala	Phe	Thr	Leu
1				5					10					15	
Gln	Pro	Ala	Ala	His	Thr	Gly	Ala	Ala	Arg	Ser	Cys	Arg	Phe	Arg	Gly
			20					25					30		
Arg	His	Tyr	Lys	Arg	Glu	Phe	Arg	Leu	Glu	Gly	Glu	Pro	Val	Ala	Leu
		35					40					45			
Arg	Cys	Pro	Gln	Val	Pro	Tyr	Trp	Leu	Trp	Ala	Ser	Val	Ser	Pro	Arg
	50					55					60				
Ile	Asn	Leu	Thr	Trp	His	Lys	Asn	Asp	Ser	Ala	Arg	Thr	Val	Pro	Gly
65					70				75					80	
Glu	Glu	Glu	Thr	Arg	Met	Trp	Ala	Gln	Asp	Gly	Ala	Leu	Trp	Leu	Leu
				85					90					95	
Pro	Ala	Leu	Gln	Glu	Asp	Ser	Gly	Thr	Tyr	Val	Cys	Thr	Thr	Arg	Asn
			100					105					110		
Ala	Ser	Tyr	Cys	Asp	Lys	Met	Ser	Ile	Glu	Leu	Arg	Val	Phe	Glu	Asn
		115					120					125			
Thr	Asp	Ala	Phe	Leu	Pro	Phe	Ile	Ser	Tyr	Pro	Gln	Ile	Leu	Thr	Leu
	130					135					140				
Ser	Thr	Ser	Gly	Val	Leu	Val	Cys	Pro	Asp	Leu	Ser	Glu	Phe	Thr	Arg
145					150					155					160
Asp	Lys	Thr	Asp	Val	Lys	Ile	Gln	Trp	Tyr	Lys	Asp	Ser	Leu	Leu	Leu
				165					170					175	
Asp	Lys	Asp	Asn	Glu	Lys	Phe	Leu	Ser	Val	Arg	Gly	Thr	Thr	His	Leu
			180					185					190		
Leu	Val	His	Asp	Val	Ala	Leu	Glu	Asp	Ala	Gly	Tyr	Tyr	Arg	Cys	Val
		195					200					205			
Leu	Thr	Phe	Ala	His	Glu	Gly	Gln	Gln	Tyr	Asn	Ile	Thr	Arg	Ser	Ile
	210					215					220				
Glu	Leu	Arg	Ile	Lys	Lys	Lys	Lys	Glu	Glu	Thr	Ile	Pro	Val	Ile	Ile

225					230					235				240	
Ser	Pro	Leu	Lys	Thr	Ile	Ser	Ala	Ser	Leu	Gly	Ser	Arg	Leu	Thr	Ile
				245					250					255	
Pro	Cys	Lys	Val	Phe	Leu	Gly	Thr	Gly	Thr	Pro	Leu	Thr	Thr	Met	Leu
			260					265					270		
Trp	Trp	Thr	Ala	Asn	Asp	Thr	His	Ile	Glu	Ser	Ala	Tyr	Pro	Gly	Gly
		275					280					285			
Arg	Val	Thr	Glu	Gly	Pro	Arg	Gln	Glu	Tyr	Ser	Glu	Asn	Asn	Glu	Asn
	290					295				300					
Tyr	Ile	Glu	Val	Pro	Leu	Ile	Phe	Asp	Pro	Val	Thr	Arg	Glu	Asp	Leu
305					310					315					320
His	Met	Asp	Phe	Lys	Cys	Val	Val	His	Asn	Thr	Leu	Ser	Phe	Gln	Thr
				325					330					335	
Leu	Arg	Thr	Thr	Val	Lys	Glu	Ala	Ser	Ser	Thr	Phe	Ser	Trp	Gly	Ile
			340					345					350		
Val	Leu	Ala	Pro	Leu	Ser	Leu	Ala	Phe	Leu	Val	Leu	Gly	Gly	Ile	Trp
		355					360					365			
Met	His	Arg	Arg	Cys	Lys	His	Arg	Thr	Gly	Lys	Ala	Asp	Gly	Leu	Thr
	370					375					380				
Val	Leu	Trp	Pro	His	His	Gln	Asp	Phe	Gln	Ser	Tyr	Pro	Lys		
385					390					395					

<210> 157  
 <211> 160  
 <212> PRT  
 <213> Homo sapiens

<400> 157															
Met	Glu	Lys	Phe	Asn	Thr	Ile	Ser	Ala	Ser	Lys	Cys	Asn	Lys	Glu	Thr
1				5					10				15		
Val	Ala	Met	Lys	Glu	Lys	Cys	Lys	Phe	Gly	Met	Thr	Ser	Thr	Ile	Pro
			20					25					30		
Ser	Gly	His	Val	Trp	Arg	Asn	Thr	Trp	Asn	Pro	Val	Ser	Cys	Ser	Leu
		35				40						45			
Ala	Thr	Val	Lys	Met	Lys	Glu	Cys	Leu	Arg	Gly	Lys	Leu	Ile	Tyr	Leu
	50					55					60				
Met	Gly	Asp	Ser	Thr	Ile	Arg	Gln	Trp	Met	Glu	Tyr	Phe	Lys	Ala	Ser
65					70				75					80	
Ile	Asn	Thr	Leu	Lys	Ser	Val	Asp	Leu	His	Glu	Ser	Gly	Lys	Leu	Gln
			85						90					95	
His	Gln	Leu	Ala	Val	Asp	Leu	Asp	Arg	Asn	Ile	Asn	Ile	Gln	Trp	Gln
		100						105					110		
Lys	Tyr	Cys	Tyr	Pro	Leu	Ile	Gly	Ser	Met	Thr	Tyr	Ser	Val	Lys	Glu
		115					120					125			
Met	Glu	Tyr	Leu	Thr	Arg	Ala	Ile	Asp	Arg	Thr	Gly	Gly	Glu	Lys	Lys
	130					135					140				
Tyr	Cys	His	Cys	Tyr	Phe	Pro	Gly	Pro	Ala	Phe	Gln	Thr	Leu	Ser	His
145					150					155					160

<210> 158  
 <211> 267  
 <212> PRT  
 <213> Homo sapiens

<400> 158

Met	Met	Ser	Ser	Lys	Pro	Thr	Ser	His	Ala	Glu	Val	Asn	Glu	Thr	Ile
1				5					10					15	
Pro	Asn	Pro	Tyr	Pro	Pro	Gly	Ser	Phe	Met	Ala	Pro	Gly	Phe	Gln	Gln
			20					25					30		
Pro	Leu	Gly	Ser	Ile	Asn	Leu	Glu	Asn	Gln	Ala	Gln	Gly	Ala	Gln	Arg
		35					40					45			
Ala	Gln	Pro	Tyr	Gly	Ile	Thr	Ser	Pro	Gly	Ile	Phe	Ala	Ser	Ser	Gln
	50					55					60				
Pro	Gly	Gln	Gly	Asn	Ile	Gln	Met	Ile	Asn	Pro	Ser	Val	Gly	Thr	Ala
65					70					75					80
Val	Met	Asn	Phe	Lys	Glu	Glu	Ala	Lys	Ala	Leu	Gly	Val	Ile	Gln	Ile
				85					90					95	
Met	Val	Gly	Leu	Met	His	Ile	Gly	Phe	Gly	Ile	Val	Leu	Cys	Leu	Ile
			100					105					110		
Ser	Phe	Ser	Phe	Arg	Glu	Val	Leu	Gly	Phe	Ala	Ser	Thr	Ala	Val	Ile
		115					120					125			
Gly	Gly	Tyr	Pro	Phe	Trp	Gly	Gly	Leu	Ser	Phe	Ile	Ile	Ser	Gly	Ser
	130					135					140				
Leu	Ser	Val	Ser	Ala	Ser	Lys	Glu	Leu	Ser	Arg	Cys	Leu	Val	Lys	Gly
145					150					155					160
Ser	Leu	Gly	Met	Asn	Ile	Val	Ser	Ser	Ile	Leu	Ala	Phe	Ile	Gly	Val
			165						170					175	
Ile	Leu	Leu	Leu	Val	Asp	Met	Cys	Ile	Asn	Gly	Val	Ala	Gly	Gln	Asp
			180					185				190			
Tyr	Trp	Ala	Val	Leu	Ser	Gly	Lys	Gly	Ile	Ser	Ala	Thr	Leu	Met	Ile
		195					200					205			
Phe	Ser	Leu	Leu	Glu	Phe	Phe	Val	Ala	Cys	Ala	Thr	Ala	His	Phe	Ala
		210				215					220				
Asn	Gln	Ala	Asn	Thr	Thr	Thr	Asn	Met	Ser	Val	Leu	Val	Ile	Pro	Asn
225					230					235					240
Met	Tyr	Glu	Ser	Asn	Pro	Val	Thr	Pro	Ala	Ser	Ser	Ser	Ala	Pro	Pro
				245					250					255	
Arg	Cys	Asn	Asn	Tyr	Ser	Ala	Asn	Ala	Pro	Lys					
			260					265							

<210> 159  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 159

Met	Leu	Val	Leu	Leu	Ala	Gly	Ile	Phe	Val	Val	His	Ile	Ala	Thr	Val
1				5					10					15	
Ile	Met	Leu	Phe	Val	Ser	Thr	Ile	Ala	Asn	Val	Trp	Leu	Val	Ser	Asn
			20					25					30		
Thr	Val	Asp	Ala	Ser	Val	Gly	Leu	Trp	Lys	Asn	Cys	Thr	Asn	Ile	Ser
		35					40					45			
Cys	Ser	Asp	Ser	Leu	Ser	Tyr	Ala	Ser	Glu	Asp	Ala	Leu	Lys	Thr	Val
	50					55				60					
Gln	Ala	Phe	Met	Ile	Leu	Ser	Ile	Ile	Phe	Cys	Val	Ile	Ala	Leu	Leu
65					70					75					80
Val	Phe	Val	Phe	Gln	Leu	Phe	Thr	Met	Glu	Lys	Gly	Asn	Arg	Phe	Phe
				85					90					95	
Leu	Ser	Gly	Ala	Thr	Thr	Leu	Val	Cys	Trp	Leu	Cys	Ile	Leu	Val	Gly
			100					105					110		
Val	Ser	Ile	Tyr	Thr	Ser	His	Tyr	Ala	Asn	Arg	Asp	Gly	Thr	Gln	Tyr

	115		120		125
His	His Gly Tyr Ser Tyr	Ile Leu Gly Trp Ile	Cys Phe Cys Phe Ser		
	130	135	140		
Phe	Ile Ile Gly Val Leu Tyr	Leu Val Leu Arg	Lys Lys		
145		150	155		

<210> 160  
 <211> 1035  
 <212> PRT  
 <213> Homo sapiens

<400> 160

Met	Ser	Thr	Glu	Asn	Val	Glu	Gly	Lys	Pro	Ser	Asn	Leu	Gly	Glu	Arg
1				5					10					15	
Gly	Arg	Ala	Arg	Ser	Ser	Thr	Phe	Leu	Arg	Val	Val	Gln	Pro	Met	Phe
			20					25				30			
Asn	His	Ser	Ile	Phe	Thr	Ser	Ala	Val	Ser	Pro	Ala	Ala	Glu	Arg	Ile
		35					40					45			
Arg	Phe	Ile	Leu	Gly	Glu	Glu	Asp	Asp	Ser	Pro	Ala	Pro	Pro	Gln	Leu
	50					55					60				
Phe	Thr	Glu	Leu	Asp	Glu	Leu	Leu	Ala	Val	Asp	Gly	Gln	Glu	Met	Glu
65					70					75					80
Trp	Lys	Glu	Thr	Ala	Arg	Trp	Ile	Lys	Phe	Glu	Glu	Lys	Val	Glu	Gln
				85					90					95	
Gly	Gly	Glu	Arg	Trp	Ser	Lys	Pro	His	Val	Ala	Thr	Leu	Ser	Leu	His
			100					105						110	
Ser	Leu	Phe	Glu	Leu	Arg	Thr	Cys	Met	Glu	Lys	Gly	Ser	Ile	Met	Leu
		115					120					125			
Asp	Arg	Glu	Ala	Ser	Ser	Leu	Pro	Gln	Leu	Val	Glu	Met	Ile	Val	Asp
	130					135					140				
His	Gln	Ile	Glu	Thr	Gly	Leu	Leu	Lys	Pro	Glu	Leu	Lys	Asp	Lys	Val
145					150					155					160
Thr	Tyr	Thr	Leu	Leu	Arg	Lys	His	Arg	His	Gln	Thr	Lys	Lys	Ser	Asn
				165				170						175	
Leu	Arg	Ser	Leu	Ala	Asp	Ile	Gly	Lys	Thr	Val	Ser	Ser	Ala	Ser	Arg
		180						185					190		
Met	Phe	Thr	Asn	Pro	Asp	Asn	Gly	Ser	Pro	Ala	Met	Thr	His	Arg	Asn
	195						200					205			
Leu	Thr	Ser	Ser	Ser	Leu	Asn	Asp	Ile	Ser	Asp	Lys	Pro	Glu	Lys	Asp
	210					215					220				
Gln	Leu	Lys	Asn	Lys	Phe	Met	Lys	Lys	Leu	Pro	Arg	Asp	Ala	Glu	Ala
225					230					235					240
Ser	Asn	Val	Leu	Val	Gly	Glu	Val	Asp	Phe	Leu	Asp	Thr	Pro	Phe	Ile
			245						250					255	
Ala	Phe	Val	Arg	Leu	Gln	Gln	Ala	Val	Met	Leu	Gly	Ala	Leu	Thr	Glu
			260					265					270		
Val	Pro	Val	Pro	Thr	Arg	Phe	Leu	Phe	Ile	Leu	Leu	Gly	Pro	Lys	Gly
		275					280					285			
Lys	Ala	Lys	Ser	Tyr	His	Glu	Ile	Gly	Arg	Ala	Ile	Ala	Thr	Leu	Met
	290					295					300				
Ser	Asp	Glu	Val	Phe	His	Asp	Ile	Ala	Tyr	Lys	Ala	Lys	Asp	Arg	His
	305				310					315					320
Asp	Leu	Ile	Ala	Gly	Ile	Asp	Glu	Phe	Leu	Asp	Glu	Val	Ile	Val	Leu
			325					330					335		
Pro	Pro	Gly	Glu	Trp	Asp	Pro	Ala	Ile	Arg	Ile	Glu	Pro	Pro	Lys	Ser
			340				345						350		



Leu	Pro	Ser	Ser	Asp	Lys	Arg	Lys	Asn	Met	Tyr	Ser	Gly	Gly	Glu	Asn				
		355					360					365							
Val	Gln	Met	Asn	Gly	Asp	Thr	Pro	His	Asp	Gly	Gly	His	Gly	Gly	Gly				
	370					375					380								
Gly	His	Gly	Asp	Cys	Glu	Glu	Leu	Gln	Arg	Thr	Gly	Arg	Phe	Cys	Gly				
385					390					395					400				
Gly	Leu	Ile	Lys	Asp	Ile	Lys	Arg	Lys	Ala	Pro	Phe	Phe	Ala	Ser	Asp				
			405					410						415					
Phe	Tyr	Asp	Ala	Leu	Asn	Ile	Gln	Ala	Leu	Ser	Ala	Ile	Leu	Phe	Ile				
		420					425					430							
Tyr	Leu	Ala	Thr	Val	Thr	Asn	Ala	Ile	Thr	Phe	Gly	Gly	Leu	Leu	Gly				
	435					440					445								
Asp	Ala	Thr	Asp	Asn	Met	Gln	Gly	Val	Leu	Glu	Ser	Phe	Leu	Gly	Thr				
450					455					460									
Ala	Val	Ser	Gly	Ala	Ile	Phe	Cys	Leu	Phe	Ala	Gly	Gln	Pro	Leu	Thr				
465				470				475						480					
Ile	Leu	Ser	Ser	Thr	Gly	Pro	Val	Leu	Val	Phe	Glu	Arg	Leu	Leu	Phe				
			485				490						495						
Asn	Phe	Ser	Lys	Asp	Asn	Asn	Phe	Asp	Tyr	Leu	Glu	Phe	Arg	Leu	Trp				
		500					505					510							
Ile	Gly	Leu	Trp	Ser	Ala	Phe	Leu	Cys	Leu	Ile	Leu	Val	Ala	Thr	Asp				
	515					520					525								
Ala	Ser	Phe	Leu	Val	Gln	Tyr	Phe	Thr	Arg	Phe	Thr	Glu	Glu	Gly	Phe				
530					535					540									
Ser	Ser	Leu	Ile	Ser	Phe	Ile	Phe	Ile	Tyr	Asp	Ala	Phe	Lys	Lys	Met				
545				550				555						560					
Ile	Lys	Leu	Ala	Asp	Tyr	Tyr	Pro	Ile	Asn	Ser	Asn	Phe	Lys	Val	Gly				
			565				570							575					
Tyr	Asn	Thr	Leu	Phe	Ser	Cys	Thr	Cys	Val	Pro	Pro	Asp	Pro	Ala	Asn				
		580					585					590							
Ile	Ser	Ile	Ser	Asn	Asp	Thr	Thr	Leu	Ala	Pro	Glu	Tyr	Leu	Pro	Thr				
	595					600					605								
Met	Ser	Ser	Thr	Asp	Met	Tyr	His	Asn	Thr	Thr	Phe	Asp	Trp	Ala	Phe				
610					615					620									
Leu	Ser	Lys	Lys	Glu	Cys	Ser	Lys	Tyr	Gly	Gly	Asn	Leu	Val	Gly	Asn				
625				630					635					640					
Asn	Cys	Asn	Phe	Val	Pro	Asp	Ile	Thr	Leu	Met	Ser	Phe	Ile	Leu	Phe				
			645				650							655					
Leu	Gly	Thr	Tyr	Thr	Ser	Ser	Met	Ala	Leu	Lys	Lys	Phe	Lys	Thr	Ser				
		660					665					670							
Pro	Tyr	Phe	Pro	Thr	Thr	Ala	Arg	Lys	Leu	Ile	Ser	Asp	Phe	Ala	Ile				
	675					680					685								
Ile	Leu	Ser	Ile	Leu	Ile	Phe	Cys	Val	Ile	Asp	Ala	Leu	Val	Gly	Val				
690					695					700									
Asp	Thr	Pro	Lys	Leu	Ile	Val	Pro	Ser	Glu	Phe	Lys	Pro	Thr	Ser	Pro				
705				710					715					720					
Asn	Arg	Gly	Trp	Phe	Val	Pro	Pro	Phe	Gly	Glu	Asn	Pro	Trp	Trp	Val				
			725					730						735					
Cys	Leu	Ala	Ala	Ala	Ile	Pro	Ala	Leu	Leu	Val	Thr	Ile	Leu	Ile	Phe				
		740					745					750							
Met	Asp	Gln	Gln	Ile	Thr	Ala	Val	Ile	Val	Asn	Arg	Lys	Glu	His	Lys				
	755				760					765									
Leu	Lys	Lys	Gly	Ala	Gly	Tyr	His	Leu	Asp	Leu	Phe	Trp	Val	Ala	Ile				
770					775					780									
Leu	Met	Val	Ile	Cys	Ser	Leu	Met	Ala	Leu	Pro	Trp	Tyr	Val	Ala	Ala				
785				790					795					800					
Thr	Val	Ile	Ser	Ile	Ala	His	Ile	Asp	Ser	Leu	Lys	Met	Glu	Thr	Glu				







Gly	Leu	Arg	Trp	Phe	Thr	Pro	Ala	Ser	Glu	Val	Pro	Leu	Cys	Gly	His
	35						40					45			
Ala	Thr	Leu	Ala	Ser	Ala	Ala	Val	Leu	Phe	His	Lys	Ile	Lys	Asn	Met
	50					55					60				
Asn	Ser	Thr	Leu	Thr	Phe	Val	Thr	Leu	Ser	Gly	Glu	Leu	Arg	Ala	Arg
65					70					75					80
Arg	Ala	Glu	Asp	Gly	Ile	Val	Leu	Asp	Leu	Pro	Leu	Tyr	Pro	Ala	His
				85					90					95	
Pro	Gln	Asp	Phe	His	Glu	Val	Glu	Asp	Leu	Ile	Lys	Thr	Ala	Ile	Gly
			100					105					110		
Asn	Thr	Leu	Val	Gln	Asp	Ile	Cys	Tyr	Ser	Pro	Asp	Thr	Gln	Lys	Leu
		115					120					125			
Leu	Val	Arg	Leu	Ser	Asp	Val	Tyr	Asn	Arg	Ser	Phe	Leu	Glu	Asn	Leu
	130					135					140				
Lys	Val	Asn	Thr	Glu	Asn	Leu	Leu	Gln	Val	Glu	Asn	Thr	Gly	Lys	Val
145					150					155					160
Lys	Gly	Leu	Ile	Leu	Thr	Leu	Lys	Gly	Glu	Pro	Gly	Gly	Gln	Thr	Gln
				165					170					175	
Ala	Phe	Asp	Phe	Tyr	Ser	Arg	Tyr	Phe	Ala	Pro	Trp	Val	Gly	Val	Ala
			180					185					190		
Glu	Asp	Pro	Val	Thr	Gly	Ser	Ala	His	Ala	Val	Leu	Ser	Ser	Tyr	Trp
	195						200					205			
Ser	Gln	His	Leu	Gly	Lys	Lys	Glu	Met	His	Ala	Phe	Gln	Cys	Ser	His
	210					215					220				
Arg	Gly	Gly	Glu	Leu	Gly	Ile	Ser	Leu	Arg	Pro	Asp	Gly	Arg	Val	Asp
225					230					235					240
Ile	Arg	Gly	Gly	Ala	Ala	Val	Val	Leu	Glu	Gly	Thr	Leu	Thr	Ala	
				245					250					255	

<210> 164  
 <211> 622  
 <212> PRT  
 <213> Homo sapiens

<400> 164  
 Met Pro Pro Gln Leu Gln Asn Gly Leu Asn Leu Ser Ala Lys Val Val  
 1 5 10 15  
 Gln Gly Ser Leu Asp Ser Leu Pro Gln Ala Val Arg Glu Phe Leu Glu  
 20 25 30  
 Asn Asn Ala Glu Leu Cys Gln Pro Asp His Ile His Ile Cys Asp Gly  
 35 40 45  
 Ser Glu Glu Glu Asn Gly Arg Leu Leu Gly Gln Met Glu Glu Gly  
 50 55 60  
 Ile Leu Arg Arg Leu Lys Lys Tyr Asp Asn Cys Trp Leu Ala Leu Thr  
 65 70 75 80  
 Asp Pro Arg Asp Val Ala Arg Ile Glu Ser Lys Thr Val Ile Val Thr  
 85 90 95  
 Gln Glu Gln Arg Asp Thr Val Pro Ile Pro Lys Thr Gly Leu Ser Gln  
 100 105 110  
 Leu Gly Arg Trp Met Ser Glu Glu Asp Phe Glu Lys Ala Phe Asn Ala  
 115 120 125  
 Arg Phe Pro Gly Cys Met Lys Gly Arg Thr Met Tyr Val Ile Pro Phe  
 130 135 140  
 Ser Met Gly Pro Leu Gly Ser Pro Leu Ser Lys Ile Gly Ile Glu Leu  
 145 150 155 160  
 Thr Asp Ser Pro Tyr Val Val Ala Ser Met Arg Ile Met Thr Arg Met

				165					170					175			
Gly	Thr	Pro	Val	Leu	Glu	Ala	Leu	Gly	Asp	Gly	Glu	Phe	Val	Lys	Cys		
			180					185					190				
Leu	His	Ser	Val	Gly	Cys	Pro	Leu	Pro	Leu	Gln	Lys	Pro	Leu	Val	Asn		
		195					200					205					
Asn	Trp	Pro	Cys	Asn	Pro	Glu	Leu	Thr	Leu	Ile	Ala	His	Leu	Pro	Asp		
	210					215					220						
Arg	Arg	Glu	Ile	Ile	Ser	Phe	Gly	Ser	Gly	Tyr	Gly	Gly	Asn	Ser	Leu		
	225				230					235					240		
Leu	Gly	Lys	Lys	Cys	Phe	Ala	Leu	Arg	Met	Ala	Ser	Arg	Leu	Ala	Glu		
				245					250					255			
Glu	Glu	Gly	Trp	Leu	Ala	Glu	His	Met	Leu	Ile	Leu	Gly	Ile	Thr	Asn		
		260						265					270				
Pro	Glu	Gly	Glu	Lys	Lys	Tyr	Leu	Ala	Ala	Ala	Phe	Pro	Ser	Ala	Cys		
		275					280					285					
Gly	Lys	Thr	Asn	Leu	Ala	Met	Met	Asn	Pro	Ser	Leu	Pro	Gly	Trp	Lys		
	290					295					300						
Val	Glu	Cys	Val	Gly	Asp	Asp	Ile	Ala	Trp	Met	Lys	Phe	Asp	Ala	Gln		
	305				310					315					320		
Gly	His	Leu	Arg	Ala	Ile	Asn	Pro	Glu	Asn	Gly	Phe	Phe	Gly	Val	Ala		
				325				330						335			
Pro	Gly	Thr	Ser	Val	Lys	Thr	Asn	Pro	Asn	Ala	Ile	Lys	Thr	Ile	Gln		
		340					345						350				
Lys	Asn	Thr	Ile	Phe	Thr	Asn	Val	Ala	Glu	Thr	Ser	Asp	Gly	Gly	Val		
		355				360					365						
Tyr	Trp	Glu	Gly	Ile	Asp	Glu	Pro	Leu	Ala	Ser	Gly	Val	Thr	Ile	Thr		
	370				375						380						
Ser	Trp	Lys	Asn	Lys	Glu	Trp	Ser	Ser	Glu	Asp	Gly	Glu	Pro	Cys	Ala		
	385				390					395					400		
His	Pro	Asn	Ser	Arg	Phe	Cys	Thr	Pro	Ala	Ser	Gln	Cys	Pro	Ile	Ile		
				405					410					415			
Asp	Ala	Ala	Trp	Glu	Ser	Pro	Glu	Gly	Val	Pro	Ile	Glu	Gly	Ile	Ile		
			420					425					430				
Phe	Gly	Gly	Arg	Arg	Pro	Ala	Gly	Val	Pro	Leu	Val	Tyr	Glu	Ala	Leu		
		435					440					445					
Ser	Trp	Gln	His	Gly	Val	Phe	Val	Gly	Ala	Ala	Met	Arg	Ser	Glu	Ala		
	450					455					460						
Thr	Ala	Ala	Ala	Glu	His	Lys	Gly	Lys	Ile	Ile	Met	His	Asp	Pro	Phe		
	465				470						475				480		
Ala	Met	Arg	Pro	Phe	Phe	Gly	Tyr	Asn	Phe	Gly	Lys	Tyr	Leu	Ala	His		
				485					490					495			
Trp	Leu	Ser	Met	Ala	Gln	His	Pro	Ala	Ala	Lys	Leu	Pro	Lys	Ile	Phe		
			500					505					510				
His	Val	Asn	Trp	Phe	Arg	Lys	Asp	Lys	Glu	Gly	Lys	Phe	Leu	Trp	Pro		
		515					520					525					
Gly	Phe	Gly	Glu	Asn	Ser	Arg	Val	Leu	Glu	Trp	Met	Phe	Asn	Arg	Ile		
	530					535					540						
Asp	Gly	Lys	Ala	Ser	Thr	Asn	Val	Thr	Pro	Ile	Gly	Tyr	Ile	Pro	Lys		
	545				550					555					560		
Glu	Asp	Ala	Leu	Asn	Leu	Lys	Gly	Leu	Gly	His	Ile	Asn	Met	Met	Glu		
				565				570					575				
Leu	Phe	Ser	Ile	Ser	Lys	Glu	Phe	Trp	Asp	Lys	Glu	Val	Glu	Asp	Ile		
			580					585					590				
Glu	Lys	Tyr	Leu	Val	Asp	Gln	Val	Asn	Ala	Asp	Leu	Pro	Cys	Glu	Ile		
		595				600						605					
Glu	Arg	Glu	Ile	Leu	Ala	Leu	Lys	Gln	Arg	Ile	Ser	Gln	Met				
	610					615						620					

<210> 165  
 <211> 530  
 <212> PRT  
 <213> Homo sapiens

<400> 165

Met	Ser	Leu	Lys	Trp	Met	Ser	Val	Phe	Leu	Leu	Met	Gln	Leu	Ser	Cys
1				5					10					15	
Tyr	Phe	Ser	Ser	Gly	Ser	Cys	Gly	Lys	Val	Leu	Val	Trp	Pro	Thr	Glu
			20					25					30		
Tyr	Ser	His	Trp	Ile	Asn	Met	Lys	Thr	Ile	Leu	Glu	Glu	Leu	Val	Gln
		35					40					45			
Arg	Gly	His	Glu	Val	Ile	Val	Leu	Thr	Ser	Ser	Ala	Ser	Ile	Leu	Val
	50					55					60				
Asn	Ala	Ser	Lys	Ser	Ser	Ala	Ile	Lys	Leu	Glu	Val	Tyr	Pro	Thr	Ser
65					70					75				80	
Leu	Thr	Lys	Asn	Asp	Leu	Glu	Asp	Phe	Phe	Met	Lys	Met	Phe	Asp	Arg
			85					90						95	
Trp	Thr	Tyr	Ser	Ile	Ser	Lys	Asn	Thr	Phe	Trp	Ser	Tyr	Phe	Ser	Gln
			100					105					110		
Leu	Gln	Glu	Leu	Cys	Trp	Glu	Tyr	Ser	Asp	Tyr	Asn	Ile	Lys	Leu	Cys
	115						120					125			
Glu	Asp	Ala	Val	Leu	Asn	Lys	Lys	Leu	Met	Arg	Lys	Leu	Gln	Glu	Ser
	130					135					140				
Lys	Phe	Asp	Val	Leu	Leu	Ala	Asp	Ala	Val	Asn	Pro	Cys	Gly	Glu	Leu
145					150					155				160	
Leu	Ala	Glu	Leu	Leu	Asn	Ile	Pro	Phe	Leu	Tyr	Ser	Leu	Arg	Phe	Ser
			165					170						175	
Val	Gly	Tyr	Thr	Val	Glu	Lys	Asn	Gly	Gly	Gly	Phe	Leu	Phe	Pro	Pro
			180					185					190		
Ser	Tyr	Val	Pro	Val	Val	Met	Ser	Glu	Leu	Ser	Asp	Gln	Met	Ile	Phe
		195				200						205			
Met	Glu	Arg	Ile	Lys	Asn	Met	Ile	Tyr	Met	Leu	Tyr	Phe	Asp	Phe	Trp
	210					215					220				
Phe	Gln	Ala	Tyr	Asp	Leu	Lys	Lys	Trp	Asp	Gln	Phe	Tyr	Ser	Glu	Val
225					230					235				240	
Leu	Gly	Arg	Pro	Thr	Thr	Leu	Phe	Glu	Thr	Met	Gly	Lys	Ala	Glu	Met
			245					250						255	
Trp	Leu	Ile	Arg	Thr	Tyr	Trp	Asp	Phe	Glu	Phe	Pro	Arg	Pro	Phe	Leu
			260				265						270		
Pro	Asn	Val	Asp	Phe	Val	Gly	Gly	Leu	His	Cys	Lys	Pro	Ala	Lys	Pro
		275					280					285			
Leu	Pro	Lys	Glu	Met	Glu	Glu	Phe	Val	Gln	Ser	Ser	Gly	Glu	Asn	Gly
	290					295					300				
Ile	Val	Val	Phe	Ser	Leu	Gly	Ser	Met	Ile	Ser	Asn	Met	Ser	Glu	Glu
305					310					315				320	
Ser	Ala	Asn	Met	Ile	Ala	Ser	Ala	Leu	Ala	Gln	Ile	Pro	Gln	Lys	Val
			325					330						335	
Leu	Trp	Arg	Phe	Asp	Gly	Lys	Lys	Pro	Asn	Thr	Leu	Gly	Ser	Asn	Thr
			340					345					350		
Arg	Leu	Tyr	Lys	Trp	Leu	Pro	Gln	Asn	Asp	Leu	Leu	Gly	His	Pro	Lys
		355					360					365			
Thr	Lys	Ala	Phe	Ile	Thr	His	Gly	Gly	Thr	Asn	Gly	Ile	Tyr	Glu	Ala
	370					375					380				
Ile	Tyr	His	Gly	Ile	Pro	Met	Val	Gly	Ile	Pro	Leu	Phe	Ala	Asp	Gln

385                      390                      395                      400  
 His Asp Asn Ile Ala His Met Lys Ala Lys Gly Ala Ala Leu Ser Val  
                                  405                      410                      415  
 Asp Ile Arg Thr Met Ser Ser Arg Asp Leu Leu Asn Ala Leu Lys Ser  
                                  420                      425                      430  
 Val Ile Asn Asp Pro Ile Tyr Lys Glu Asn Ile Met Lys Leu Ser Arg  
                                  435                      440                      445  
 Ile His His Asp Gln Pro Val Lys Pro Leu Asp Arg Ala Val Phe Trp  
                                  450                      455                      460  
 Ile Glu Phe Val Met Arg His Lys Gly Ala Lys His Leu Arg Val Ala  
 465                      470                      475                      480  
 Ala His Asn Leu Thr Trp Ile Gln Tyr His Ser Leu Asp Val Ile Ala  
                                  485                      490                      495  
 Phe Leu Leu Ala Cys Val Ala Thr Met Ile Phe Met Ile Thr Lys Cys  
                                  500                      505                      510  
 Cys Leu Phe Cys Phe Arg Lys Leu Ala Lys Thr Gly Lys Lys Lys Lys  
                                  515                      520                      525  
 Arg Asp  
 530

<210> 166  
 <211> 387  
 <212> PRT  
 <213> Homo sapiens

<400> 166  
 Met Ser Thr Phe Phe Ser Asp Thr Ala Trp Ile Cys Leu Ala Val Pro  
 1                      5                      10                      15  
 Thr Val Leu Cys Gly Thr Val Phe Cys Lys Tyr Lys Lys Ser Ser Gly  
                                  20                      25                      30  
 Gln Leu Trp Ser Trp Met Val Cys Leu Ala Gly Leu Cys Ala Val Cys  
                                  35                      40                      45  
 Leu Leu Ile Leu Ser Pro Phe Trp Gly Leu Ile Leu Phe Ser Val Ser  
                                  50                      55                      60  
 Cys Phe Leu Met Tyr Thr Tyr Leu Ser Gly Gln Glu Leu Leu Pro Val  
 65                      70                      75                      80  
 Asp Gln Lys Ala Val Leu Val Thr Gly Gly Asp Cys Gly Leu Gly His  
                                  85                      90                      95  
 Ala Leu Cys Lys Tyr Leu Asp Glu Leu Gly Phe Thr Val Phe Ala Gly  
                                  100                      105                      110  
 Val Leu Asn Glu Asn Gly Pro Gly Ala Glu Glu Leu Arg Arg Thr Cys  
                                  115                      120                      125  
 Ser Pro Arg Leu Ser Val Leu Gln Met Asp Ile Thr Lys Pro Val Gln  
                                  130                      135                      140  
 Ile Lys Asp Ala Tyr Ser Lys Val Ala Ala Met Leu Gln Asp Arg Gly  
 145                      150                      155                      160  
 Leu Trp Ala Val Ile Asn Asn Ala Gly Val Leu Gly Phe Pro Thr Asp  
                                  165                      170                      175  
 Gly Glu Leu Leu Leu Met Thr Asp Tyr Lys Gln Cys Met Ala Val Asn  
                                  180                      185                      190  
 Phe Phe Gly Thr Val Glu Val Thr Lys Thr Phe Leu Pro Leu Leu Arg  
                                  195                      200                      205  
 Lys Ser Lys Gly Arg Leu Val Asn Val Ser Ser Met Gly Gly Gly Ala  
                                  210                      215                      220  
 Pro Met Glu Arg Leu Ala Ser Tyr Gly Ser Ser Lys Ala Ala Val Thr  
 225                      230                      235                      240



Met	Phe	Ser	Ser	Val	Met	Arg	Leu	Glu	Leu	Ser	Lys	Trp	Gly	Ile	Lys
				245					250					255	
Val	Ala	Ser	Ile	Gln	Pro	Gly	Gly	Phe	Leu	Thr	Asn	Ile	Ala	Gly	Thr
			260					265					270		
Ser	Asp	Lys	Trp	Glu	Lys	Leu	Glu	Lys	Asp	Ile	Leu	Asp	His	Leu	Pro
		275					280					285			
Ala	Glu	Val	Gln	Glu	Asp	Tyr	Gly	Gln	Asp	Tyr	Ile	Leu	Ala	Gln	Arg
		290				295					300				
Asn	Phe	Leu	Leu	Leu	Ile	Asn	Ser	Leu	Ala	Ser	Lys	Asp	Phe	Ser	Pro
305					310						315				320
Val	Leu	Arg	Asp	Ile	Gln	His	Ala	Ile	Leu	Ala	Lys	Ser	Pro	Phe	Ala
				325					330					335	
Tyr	Tyr	Thr	Pro	Gly	Lys	Gly	Ala	Tyr	Leu	Trp	Ile	Cys	Leu	Ala	His
			340					345					350		
Tyr	Leu	Pro	Ile	Gly	Ile	Tyr	Asp	Tyr	Phe	Ala	Lys	Arg	His	Phe	Gly
		355					360					365			
Gln	Asp	Lys	Pro	Met	Pro	Arg	Ala	Leu	Arg	Met	Pro	Asn	Tyr	Lys	Lys
	370					375					380				
Lys	Ala	Thr													
385															

<210> 167  
 <211> 196  
 <212> PRT  
 <213> Homo sapiens

<400> 167															
Met	Gly	Ser	Arg	Ser	Ser	His	Ala	Ala	Val	Ile	Pro	Asp	Gly	Asp	Ser
1				5					10					15	
Ile	Arg	Arg	Glu	Thr	Gly	Phe	Ser	Gln	Ala	Ser	Leu	Leu	Arg	Leu	His
			20					25					30		
His	Arg	Phe	Arg	Ala	Leu	Asp	Arg	Asn	Lys	Lys	Gly	Tyr	Leu	Ser	Arg
		35					40					45			
Met	Asp	Leu	Gln	Gln	Ile	Gly	Ala	Leu	Ala	Val	Asn	Pro	Leu	Gly	Asp
	50					55					60				
Arg	Ile	Ile	Glu	Ser	Phe	Phe	Pro	Asp	Gly	Ser	Gln	Arg	Val	Asp	Phe
65					70					75				80	
Pro	Gly	Phe	Val	Arg	Val	Leu	Ala	His	Phe	Arg	Pro	Val	Glu	Asp	Glu
			85						90				95		
Asp	Thr	Glu	Thr	Gln	Asp	Pro	Lys	Lys	Pro	Glu	Pro	Leu	Asn	Ser	Arg
			100					105					110		
Arg	Asn	Lys	Leu	His	Tyr	Ala	Phe	Gln	Leu	Tyr	Asp	Leu	Asp	Arg	Asp
		115				120					125				
Gly	Lys	Ile	Ser	Arg	His	Glu	Met	Leu	Gln	Val	Leu	Arg	Leu	Met	Val
	130					135					140				
Gly	Val	Gln	Val	Thr	Glu	Glu	Gln	Leu	Glu	Asn	Ile	Ala	Asp	Arg	Thr
145					150					155				160	
Val	Gln	Glu	Ala	Asp	Glu	Asp	Gly	Asp	Gly	Ala	Val	Ser	Phe	Val	Glu
			165					170					175		
Phe	Thr	Lys	Ser	Leu	Glu	Lys	Met	Asp	Val	Glu	Gln	Lys	Met	Ser	Ile
			180					185					190		
Arg	Ile	Leu	Lys												
195															

<210> 168

<211> 319  
 <212> PRT  
 <213> Homo sapiens

<400> 168

Met	Leu	Phe	Trp	Val	Leu	Gly	Leu	Leu	Ile	Leu	Cys	Gly	Phe	Leu	Trp
1				5					10					15	
Thr	Arg	Lys	Gly	Lys	Leu	Lys	Ile	Glu	Asp	Ile	Thr	Asp	Lys	Tyr	Ile
			20					25					30		
Phe	Ile	Thr	Gly	Cys	Asp	Ser	Gly	Phe	Gly	Asn	Leu	Ala	Ala	Arg	Thr
		35					40					45			
Phe	Asp	Lys	Lys	Gly	Phe	His	Val	Ile	Ala	Ala	Cys	Leu	Thr	Glu	Ser
	50					55					60				
Gly	Ser	Thr	Ala	Leu	Lys	Ala	Glu	Thr	Ser	Glu	Arg	Leu	Arg	Thr	Val
65					70					75					80
Leu	Leu	Asp	Val	Thr	Asp	Pro	Glu	Asn	Val	Lys	Arg	Thr	Ala	Gln	Trp
			85						90					95	
Val	Lys	Asn	Gln	Val	Gly	Glu	Lys	Gly	Leu	Trp	Gly	Leu	Ile	Asn	Asn
			100					105					110		
Ala	Gly	Val	Pro	Gly	Val	Leu	Ala	Pro	Thr	Asp	Trp	Leu	Thr	Leu	Glu
		115					120					125			
Asp	Tyr	Arg	Glu	Pro	Ile	Glu	Val	Asn	Leu	Phe	Gly	Leu	Ile	Ser	Val
	130					135					140				
Thr	Leu	Asn	Met	Leu	Pro	Leu	Val	Lys	Lys	Ala	Gln	Gly	Arg	Val	Ile
145					150					155					160
Asn	Val	Ser	Ser	Val	Gly	Gly	Arg	Leu	Ala	Ile	Val	Gly	Gly	Gly	Tyr
			165						170					175	
Thr	Pro	Ser	Lys	Tyr	Ala	Val	Glu	Gly	Phe	Asn	Asp	Ser	Leu	Arg	Arg
			180					185					190		
Asp	Met	Lys	Ala	Phe	Gly	Val	His	Val	Ser	Cys	Ile	Glu	Pro	Gly	Leu
		195					200					205			
Phe	Lys	Thr	Asn	Leu	Ala	Asp	Pro	Val	Lys	Val	Ile	Glu	Lys	Lys	Leu
	210					215					220				
Ala	Ile	Trp	Glu	Gln	Leu	Ser	Pro	Asp	Ile	Lys	Gln	Gln	Tyr	Gly	Glu
225					230					235					240
Gly	Tyr	Ile	Glu	Lys	Ser	Leu	Asp	Lys	Leu	Lys	Gly	Asn	Lys	Ser	Tyr
			245						250					255	
Val	Asn	Met	Asp	Leu	Ser	Pro	Val	Val	Glu	Cys	Met	Asp	His	Ala	Leu
		260						265					270		
Thr	Ser	Leu	Phe	Pro	Lys	Thr	His	Tyr	Ala	Ala	Gly	Lys	Asp	Ala	Lys
		275					280					285			
Ile	Phe	Trp	Ile	Pro	Leu	Ser	His	Met	Pro	Ala	Ala	Leu	Gln	Asp	Phe
	290					295					300				
Leu	Leu	Leu	Lys	Gln	Lys	Ala	Glu	Leu	Ala	Asn	Pro	Lys	Ala	Val	
305					310					315					

<210> 169  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<400> 169

Met	Gly	Gln	Glu	Phe	Ser	Trp	Glu	Glu	Ala	Glu	Ala	Ala	Gly	Glu	Ile
1				5					10					15	
Asp	Val	Ala	Glu	Leu	Gln	Glu	Trp	Tyr	Lys	Lys	Phe	Val	Met	Glu	Cys
			20					25					30		

Pro	Ser	Gly	Thr	Leu	Phe	Met	His	Glu	Phe	Lys	Arg	Phe	Phe	Lys	Val
		35					40					45			
Thr	Asp	Asp	Glu	Glu	Ala	Ser	Gln	Tyr	Val	Glu	Gly	Met	Phe	Arg	Ala
	50					55					60				
Phe	Asp	Lys	Asn	Gly	Asp	Asn	Thr	Ile	Asp	Phe	Leu	Glu	Tyr	Val	Ala
65				70					75					80	
Ala	Leu	Asn	Leu	Val	Leu	Arg	Gly	Thr	Leu	Glu	His	Lys	Leu	Lys	Trp
			85						90					95	
Thr	Phe	Lys	Ile	Tyr	Asp	Lys	Asp	Gly	Asn	Gly	Cys	Ile	Asp	Arg	Leu
			100					105					110		
Glu	Leu	Leu	Asn	Ile	Val	Glu	Gly	Ile	Tyr	Gln	Leu	Lys	Lys	Ala	Cys
		115					120					125			
Arg	Arg	Glu	Leu	Gln	Thr	Glu	Gln	Asp	Gln	Leu	Leu	Thr	Pro	Glu	Glu
	130					135					140				
Val	Val	Asp	Arg	Ile	Phe	Leu	Leu	Val	Asp	Glu	Asn	Gly	Asp	Gly	Gln
145					150				155					160	
Leu	Ser	Leu	Asn	Glu	Phe	Val	Glu	Gly	Ala	Arg	Arg	Asp	Lys	Trp	Val
			165					170					175		
Met	Lys	Met	Leu	Gln	Met	Asp	Met	Asn	Pro	Ser	Ser	Trp	Leu	Ala	Gln
			180					185					190		
Gln	Arg	Arg	Lys	Ser	Ala	Met	Phe								
		195					200								

<210> 170

<211> 280

<212> PRT

<213> Homo sapiens

<400> 170

Met	Ala	Glu	Lys	Phe	Asp	Cys	His	Tyr	Cys	Arg	Asp	Pro	Leu	Gln	Gly
1				5					10					15	
Lys	Lys	Tyr	Val	Gln	Lys	Asp	Gly	His	His	Cys	Cys	Leu	Lys	Cys	Phe
			20					25					30		
Asp	Lys	Phe	Cys	Ala	Asn	Thr	Cys	Val	Glu	Cys	Arg	Lys	Pro	Ile	Gly
		35					40					45			
Ala	Asp	Ser	Lys	Glu	Val	His	Tyr	Lys	Asn	Arg	Phe	Trp	His	Asp	Thr
	50					55					60				
Cys	Phe	Arg	Cys	Ala	Lys	Cys	Leu	His	Pro	Leu	Ala	Asn	Glu	Thr	Phe
65				70					75					80	
Val	Ala	Lys	Asp	Asn	Lys	Ile	Leu	Cys	Asn	Lys	Cys	Thr	Thr	Arg	Glu
			85					90					95		
Asp	Ser	Pro	Lys	Cys	Lys	Gly	Cys	Phe	Lys	Ala	Ile	Val	Ala	Gly	Asp
		100						105					110		
Gln	Asn	Val	Glu	Tyr	Lys	Gly	Thr	Val	Trp	His	Lys	Asp	Cys	Phe	Thr
		115					120					125			
Cys	Ser	Asn	Cys	Lys	Gln	Val	Ile	Gly	Thr	Gly	Ser	Phe	Phe	Pro	Lys
	130					135					140				
Gly	Glu	Asp	Phe	Tyr	Cys	Val	Thr	Cys	His	Glu	Thr	Lys	Phe	Ala	Lys
145					150				155					160	
His	Cys	Val	Lys	Cys	Asn	Lys	Ala	Ile	Thr	Ser	Gly	Gly	Ile	Thr	Tyr
			165					170					175		
Gln	Asp	Gln	Pro	Trp	His	Ala	Asp	Cys	Phe	Val	Cys	Val	Thr	Cys	Ser
		180					185					190			
Lys	Lys	Leu	Ala	Gly	Gln	Arg	Phe	Thr	Ala	Val	Glu	Asp	Gln	Tyr	Tyr
		195					200				205				
Cys	Val	Asp	Cys	Tyr	Lys	Asn	Phe	Val	Ala	Lys	Lys	Cys	Ala	Gly	Cys

210		215		220
Lys Asn Pro Ile Thr Gly	Phe Gly Lys Gly Ser Ser Val Val Ala Tyr			
225	230	235		240
Glu Gly Gln Ser Trp His Asp Tyr Cys Phe His Cys Lys Lys Cys Ser				
	245	250		255
Val Asn Leu Ala Asn Lys Arg Phe Val Phe His Gln Glu Gln Val Tyr				
	260	265		270
Cys Pro Asp Cys Ala Lys Lys Leu				
	275	280		

<210> 171  
 <211> 470  
 <212> PRT  
 <213> Homo sapiens

<400> 171

Met Leu Arg Gly Ile Ser Gln Leu Pro Ala Val Ala Thr Met Ser Trp	
1	5 10 15
Val Leu Leu Pro Val Leu Trp Leu Ile Val Gln Thr Gln Ala Ile Ala	
	20 25 30
Ile Lys Gln Thr Pro Glu Leu Thr Leu His Glu Ile Val Cys Pro Lys	
	35 40 45
Lys Leu His Ile Leu His Lys Arg Glu Ile Lys Asn Asn Gln Thr Glu	
	50 55 60
Lys His Gly Lys Glu Glu Arg Tyr Glu Pro Glu Val Gln Tyr Gln Met	
65	70 75 80
Ile Leu Asn Gly Glu Glu Ile Ile Leu Ser Leu Gln Lys Thr Lys His	
	85 90 95
Leu Leu Gly Pro Asp Tyr Thr Glu Thr Leu Tyr Ser Pro Arg Gly Glu	
	100 105 110
Glu Ile Thr Thr Lys Pro Glu Asn Met Glu His Cys Tyr Tyr Lys Gly	
	115 120 125
Asn Ile Leu Asn Glu Lys Asn Ser Val Ala Ser Ile Ser Thr Cys Asp	
	130 135 140
Gly Leu Arg Gly Tyr Phe Thr His His His Gln Arg Tyr Gln Ile Lys	
145	150 155 160
Pro Leu Lys Ser Thr Asp Glu Lys Glu His Ala Val Phe Thr Ser Asn	
	165 170 175
Gln Glu Glu Gln Asp Pro Ala Asn His Thr Cys Gly Val Lys Ser Thr	
	180 185 190
Asp Gly Lys Gln Gly Pro Ile Arg Ile Ser Arg Ser Leu Lys Ser Pro	
	195 200 205
Glu Lys Glu Asp Phe Leu Arg Ala Gln Lys Tyr Ile Asp Leu Tyr Leu	
	210 215 220
Val Leu Asp Asn Ala Phe Tyr Lys Asn Tyr Asn Glu Asn Leu Thr Leu	
225	230 235 240
Ile Arg Ser Phe Val Phe Asp Val Met Asn Leu Leu Asn Val Ile Tyr	
	245 250 255
Asn Thr Ile Asp Val Gln Val Ala Leu Val Gly Met Glu Ile Trp Ser	
	260 265 270
Asp Gly Asp Lys Ile Lys Val Val Pro Ser Ala Ser Thr Thr Phe Asp	
	275 280 285
Asn Phe Leu Arg Trp His Ser Ser Asn Leu Gly Lys Lys Ile His Asp	
	290 295 300
His Ala Gln Leu Leu Ser Gly Ile Ser Phe Asn Asn Arg Arg Val Gly	
305	310 315 320

Leu Ala Ala Ser Asn Ser Leu Cys Ser Pro Ser Ser Val Ala Val Ile  
 325 330 335  
 Glu Ala Lys Lys Lys Asn Asn Val Ala Leu Val Gly Val Met Ser His  
 340 345 350  
 Glu Leu Gly His Val Leu Gly Met Pro Asp Val Pro Phe Asn Thr Lys  
 355 360 365  
 Cys Pro Ser Gly Ser Cys Val Met Asn Gln Tyr Leu Ser Ser Lys Phe  
 370 375 380  
 Pro Lys Asp Phe Ser Thr Ser Cys Arg Ala His Phe Glu Arg Tyr Leu  
 385 390 395 400  
 Leu Ser Gln Lys Pro Lys Cys Leu Leu Gln Ala Pro Ile Pro Thr Asn  
 405 410 415  
 Ile Met Thr Thr Pro Val Cys Gly Asn His Leu Leu Glu Val Gly Glu  
 420 425 430  
 Asp Cys Asp Cys Gly Ser Pro Lys Glu Cys Thr Asn Leu Cys Cys Glu  
 435 440 445  
 Ala Leu Thr Cys Lys Leu Lys Pro Gly Thr Asp Cys Gly Gly Asp Ala  
 450 455 460  
 Pro Asn His Thr Thr Glu  
 465 470

<210> 172  
 <211> 86  
 <212> PRT  
 <213> Homo sapiens

<400> 172  
 Met Ala Val Arg Gln Trp Val Ile Ala Leu Ala Leu Ala Ala Leu Leu  
 1 5 10 15  
 Val Val Asp Arg Glu Val Pro Val Ala Ala Gly Lys Leu Pro Phe Ser  
 20 25 30  
 Arg Met Pro Ile Cys Glu His Met Val Glu Ser Pro Thr Cys Ser Gln  
 35 40 45  
 Met Ser Asn Leu Val Cys Gly Thr Asp Gly Leu Thr Tyr Thr Asn Glu  
 50 55 60  
 Cys Gln Leu Cys Leu Ala Arg Ile Lys Thr Lys Gln Asp Ile Gln Ile  
 65 70 75 80  
 Met Lys Asp Gly Lys Cys  
 85

<210> 173  
 <211> 261  
 <212> PRT  
 <213> Homo sapiens

<400> 173  
 Met Ala Ser Pro Asp Trp Gly Tyr Asp Asp Lys Asn Gly Pro Glu Gln  
 1 5 10 15  
 Trp Ser Lys Leu Tyr Pro Ile Ala Asn Gly Asn Asn Gln Ser Pro Val  
 20 25 30  
 Asp Ile Lys Thr Ser Glu Thr Lys His Asp Thr Ser Leu Lys Pro Ile  
 35 40 45  
 Ser Val Ser Tyr Asn Pro Ala Thr Ala Lys Glu Ile Ile Asn Val Gly  
 50 55 60  
 His Ser Phe His Val Asn Phe Glu Asp Asn Asp Asn Arg Ser Val Leu

65					70					75				80	
Lys	Gly	Gly	Pro	Phe	Ser	Asp	Ser	Tyr	Arg	Leu	Phe	Gln	Phe	His	Phe
				85					90					95	
His	Trp	Gly	Ser	Thr	Asn	Glu	His	Gly	Ser	Glu	His	Thr	Val	Asp	Gly
			100					105					110		
Val	Lys	Tyr	Ser	Ala	Glu	Leu	His	Val	Ala	His	Trp	Asn	Ser	Ala	Lys
		115					120					125			
Tyr	Ser	Ser	Leu	Ala	Glu	Ala	Ala	Ser	Lys	Ala	Asp	Gly	Leu	Ala	Val
		130				135					140				
Ile	Gly	Val	Leu	Met	Lys	Val	Gly	Glu	Ala	Asn	Pro	Lys	Leu	Gln	Lys
145					150					155					160
Val	Leu	Asp	Ala	Leu	Gln	Ala	Ile	Lys	Thr	Lys	Gly	Lys	Arg	Ala	Pro
				165					170					175	
Phe	Thr	Asn	Phe	Asp	Pro	Ser	Thr	Leu	Leu	Pro	Ser	Ser	Leu	Asp	Phe
			180					185					190		
Trp	Thr	Tyr	Pro	Gly	Ser	Leu	Thr	His	Pro	Pro	Leu	Tyr	Glu	Ser	Val
		195					200					205			
Thr	Trp	Ile	Ile	Cys	Lys	Glu	Ser	Ile	Ser	Val	Ser	Ser	Glu	Gln	Leu
	210					215					220				
Ala	Gln	Phe	Arg	Ser	Leu	Leu	Ser	Asn	Val	Glu	Gly	Asp	Asn	Ala	Val
225					230					235					240
Pro	Met	Gln	His	Asn	Asn	Arg	Pro	Thr	Gln	Pro	Leu	Lys	Gly	Arg	Thr
				245					250					255	
Val	Arg	Ala	Ser	Phe											
			260												

<210> 174  
 <211> 431  
 <212> PRT  
 <213> Homo sapiens

<400> 174

Met	Thr	Val	Lys	Thr	Glu	Ala	Ala	Lys	Gly	Thr	Leu	Thr	Tyr	Ser	Arg
1				5					10					15	
Met	Arg	Gly	Met	Val	Ala	Ile	Leu	Ile	Ala	Phe	Met	Lys	Gln	Arg	Arg
			20					25					30		
Met	Gly	Leu	Asn	Asp	Phe	Ile	Gln	Lys	Ile	Ala	Asn	Asn	Ser	Tyr	Ala
		35					40					45			
Cys	Lys	His	Pro	Glu	Val	Gln	Ser	Ile	Leu	Lys	Ile	Ser	Gln	Pro	Gln
	50					55					60				
Glu	Pro	Glu	Leu	Met	Asn	Ala	Asn	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Ser
65					70					75					80
Gln	Gln	Ile	Asn	Leu	Gly	Pro	Ser	Ser	Asn	Pro	His	Ala	Lys	Pro	Ser
				85					90					95	
Asp	Phe	His	Phe	Leu	Lys	Val	Ile	Gly	Lys	Gly	Ser	Phe	Gly	Lys	Val
			100					105					110		
Leu	Leu	Ala	Arg	His	Lys	Ala	Glu	Glu	Val	Phe	Tyr	Ala	Val	Lys	Val
		115					120					125			
Leu	Gln	Lys	Lys	Ala	Ile	Leu	Lys	Lys	Lys	Glu	Glu	Lys	His	Ile	Met
	130					135					140				
Ser	Glu	Arg	Asn	Val	Leu	Leu	Lys	Asn	Val	Lys	His	Pro	Phe	Leu	Val
145					150					155					160
Gly	Leu	His	Phe	Ser	Phe	Gln	Thr	Ala	Asp	Lys	Leu	Tyr	Phe	Val	Leu
			165						170					175	
Asp	Tyr	Ile	Asn	Gly	Gly	Glu	Leu	Phe	Tyr	His	Leu	Gln	Arg	Glu	Arg
			180						185				190		

Cys	Phe	Leu	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Ala	Ala	Glu	Ile	Ala	Ser
	195						200					205			
Ala	Leu	Gly	Tyr	Leu	His	Ser	Leu	Asn	Ile	Val	Tyr	Arg	Asp	Leu	Lys
	210					215					220				
Pro	Glu	Asn	Ile	Leu	Leu	Asp	Ser	Gln	Gly	His	Ile	Val	Leu	Thr	Asp
225					230					235					240
Phe	Gly	Leu	Cys	Lys	Glu	Asn	Ile	Glu	His	Asn	Ser	Thr	Thr	Ser	Thr
				245					250					255	
Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Leu	His	Lys	Gln
			260					265					270		
Pro	Tyr	Asp	Arg	Thr	Val	Asp	Trp	Trp	Cys	Leu	Gly	Ala	Val	Leu	Tyr
		275					280					285			
Glu	Met	Leu	Tyr	Gly	Leu	Pro	Pro	Phe	Tyr	Ser	Arg	Asn	Thr	Ala	Glu
	290					295					300				
Met	Tyr	Asp	Asn	Ile	Leu	Asn	Lys	Pro	Leu	Gln	Leu	Lys	Pro	Asn	Ile
305					310					315					320
Thr	Asn	Ser	Ala	Arg	His	Leu	Leu	Glu	Gly	Leu	Leu	Gln	Lys	Asp	Arg
				325					330					335	
Thr	Lys	Arg	Leu	Gly	Ala	Lys	Asp	Asp	Phe	Met	Glu	Ile	Lys	Ser	His
			340					345					350		
Val	Phe	Phe	Ser	Leu	Ile	Asn	Trp	Asp	Asp	Leu	Ile	Asn	Lys	Lys	Ile
	355						360					365			
Thr	Pro	Pro	Phe	Asn	Pro	Asn	Val	Ser	Gly	Pro	Asn	Asp	Leu	Arg	His
	370					375					380				
Phe	Asp	Pro	Glu	Phe	Thr	Glu	Glu	Pro	Val	Pro	Asn	Ser	Ile	Gly	Lys
385					390					395					400
Ser	Pro	Asp	Ser	Val	Leu	Val	Thr	Ala	Ser	Val	Lys	Glu	Ala	Ala	Glu
				405					410					415	
Ala	Phe	Leu	Gly	Phe	Ser	Tyr	Ala	Pro	Pro	Thr	Asp	Ser	Phe	Leu	
		420						425					430		

<210> 175  
 <211> 381  
 <212> PRT  
 <213> Homo sapiens

<400> 175

Met	Pro	Phe	Ser	Asn	Ser	His	Asn	Ala	Leu	Lys	Leu	Arg	Phe	Pro	Ala
1				5					10					15	
Glu	Asp	Glu	Phe	Pro	Asp	Leu	Ser	Ala	His	Asn	Asn	His	Met	Ala	Lys
			20					25					30		
Val	Leu	Thr	Pro	Glu	Leu	Tyr	Ala	Glu	Leu	Arg	Ala	Lys	Ser	Thr	Pro
		35					40					45			
Ser	Gly	Phe	Thr	Leu	Asp	Asp	Val	Ile	Gln	Thr	Gly	Val	Asp	Asn	Pro
	50					55					60				
Gly	His	Pro	Tyr	Ile	Met	Thr	Val	Gly	Cys	Val	Ala	Gly	Asp	Glu	Glu
65					70				75					80	
Ser	Tyr	Glu	Val	Phe	Lys	Asp	Leu	Phe	Asp	Pro	Ile	Ile	Glu	Asp	Arg
				85					90					95	
His	Gly	Gly	Tyr	Lys	Pro	Ser	Asp	Glu	His	Lys	Thr	Asp	Leu	Asn	Pro
			100					105					110		
Asp	Asn	Leu	Gln	Gly	Gly	Asp	Asp	Leu	Asp	Pro	Asn	Tyr	Val	Leu	Ser
		115					120					125			
Ser	Arg	Val	Arg	Thr	Gly	Arg	Ser	Ile	Arg	Gly	Phe	Cys	Leu	Pro	Pro
	130					135					140				
His	Cys	Ser	Arg	Gly	Glu	Arg	Arg	Ala	Ile	Glu	Lys	Leu	Ala	Val	Glu

145				150				155				160			
Ala	Leu	Ser	Ser	Leu	Asp	Gly	Asp	Leu	Ala	Gly	Arg	Tyr	Tyr	Ala	Leu
				165					170					175	
Lys	Ser	Met	Thr	Glu	Ala	Glu	Gln	Gln	Gln	Leu	Ile	Asp	Asp	His	Phe
			180					185					190		
Leu	Phe	Asp	Lys	Pro	Val	Ser	Pro	Leu	Leu	Leu	Ala	Ser	Gly	Met	Ala
		195					200					205			
Arg	Asp	Trp	Pro	Asp	Ala	Arg	Gly	Ile	Trp	His	Asn	Asp	Asn	Lys	Thr
	210					215					220				
Phe	Leu	Val	Trp	Val	Asn	Glu	Glu	Asp	His	Leu	Arg	Val	Ile	Ser	Met
225					230					235					240
Gln	Lys	Gly	Gly	Asn	Met	Lys	Glu	Val	Phe	Thr	Arg	Phe	Cys	Thr	Gly
				245					250					255	
Leu	Thr	Gln	Ile	Glu	Thr	Leu	Phe	Lys	Ser	Lys	Asp	Tyr	Glu	Phe	Met
			260					265					270		
Trp	Asn	Pro	His	Leu	Gly	Tyr	Ile	Leu	Thr	Cys	Pro	Ser	Asn	Leu	Gly
	275						280					285			
Thr	Gly	Leu	Arg	Ala	Gly	Val	His	Ile	Lys	Leu	Pro	Asn	Leu	Gly	Lys
	290					295					300				
His	Glu	Lys	Phe	Ser	Glu	Val	Leu	Lys	Arg	Leu	Arg	Leu	Gln	Lys	Arg
305					310					315					320
Gly	Thr	Gly	Gly	Val	Asp	Thr	Ala	Ala	Val	Gly	Gly	Val	Phe	Asp	Val
				325					330					335	
Ser	Asn	Ala	Asp	Arg	Leu	Gly	Phe	Ser	Glu	Val	Glu	Leu	Val	Gln	Met
			340					345					350		
Val	Val	Asp	Gly	Val	Lys	Leu	Leu	Ile	Glu	Met	Glu	Gln	Arg	Leu	Glu
		355					360					365			
Gln	Gly	Gln	Ala	Ile	Asp	Asp	Leu	Met	Pro	Ala	Gln	Lys			
	370					375					380				

<210> 176  
 <211> 739  
 <212> PRT  
 <213> Homo sapiens

<400> 176

Met	Ser	Ser	Glu	Ser	Lys	Glu	Gln	His	Asn	Val	Ser	Pro	Arg	Asp	Ser
1				5					10					15	
Ala	Glu	Gly	Asn	Asp	Ser	Tyr	Pro	Ser	Gly	Ile	His	Leu	Glu	Leu	Gln
			20					25					30		
Arg	Glu	Ser	Ser	Thr	Asp	Phe	Lys	Gln	Phe	Glu	Thr	Asn	Asp	Gln	Cys
		35					40					45			
Arg	Pro	Tyr	His	Arg	Ile	Leu	Ile	Glu	Arg	Gln	Glu	Lys	Ser	Asp	Thr
	50					55					60				
Asn	Phe	Lys	Glu	Phe	Val	Ile	Lys	Lys	Leu	Gln	Lys	Asn	Cys	Gln	Cys
65					70					75					80
Ser	Pro	Ala	Lys	Ala	Lys	Asn	Met	Ile	Leu	Gly	Phe	Leu	Pro	Val	Leu
				85					90					95	
Gln	Trp	Leu	Pro	Lys	Tyr	Asp	Leu	Lys	Lys	Asn	Ile	Leu	Gly	Asp	Val
			100					105					110		
Met	Ser	Gly	Leu	Ile	Val	Gly	Ile	Leu	Leu	Val	Pro	Gln	Ser	Ile	Ala
		115					120					125			
Tyr	Ser	Leu	Leu	Ala	Gly	Gln	Glu	Pro	Val	Tyr	Gly	Leu	Tyr	Thr	Ser
	130					135					140				
Phe	Phe	Ala	Ser	Ile	Ile	Tyr	Phe	Leu	Leu	Gly	Thr	Ser	Arg	His	Ile
145					150					155					160



Ser	Val	Gly	Ile	Phe	Gly	Val	Leu	Cys	Leu	Met	Ile	Gly	Glu	Thr	Val	
				165					170						175	
Asp	Arg	Glu	Leu	Gln	Lys	Ala	Gly	Tyr	Asp	Asn	Ala	His	Ser	Ala	Pro	
			180					185					190			
Ser	Leu	Gly	Met	Val	Ser	Asn	Gly	Ser	Thr	Leu	Leu	Asn	His	Thr	Ser	
		195					200					205				
Asp	Arg	Ile	Cys	Asp	Lys	Ser	Cys	Tyr	Ala	Ile	Met	Val	Gly	Ser	Thr	
	210					215					220					
Val	Thr	Phe	Ile	Ala	Gly	Val	Tyr	Gln	Val	Ala	Met	Gly	Phe	Phe	Gln	
225					230					235					240	
Val	Gly	Phe	Val	Ser	Val	Tyr	Leu	Ser	Asp	Ala	Leu	Leu	Ser	Gly	Phe	
				245					250					255		
Val	Thr	Gly	Ala	Ser	Phe	Thr	Ile	Leu	Thr	Ser	Gln	Ala	Lys	Tyr	Leu	
			260					265					270			
Leu	Gly	Leu	Asn	Leu	Pro	Arg	Thr	Asn	Gly	Val	Gly	Ser	Leu	Ile	Thr	
		275					280					285				
Thr	Trp	Ile	His	Val	Phe	Arg	Asn	Ile	His	Lys	Thr	Asn	Leu	Cys	Asp	
	290					295					300					
Leu	Ile	Thr	Ser	Leu	Leu	Cys	Leu	Leu	Val	Leu	Leu	Pro	Thr	Lys	Glu	
305					310					315					320	
Leu	Asn	Glu	His	Phe	Lys	Ser	Lys	Leu	Lys	Ala	Pro	Ile	Pro	Ile	Glu	
				325					330					335		
Leu	Val	Val	Val	Val	Ala	Ala	Thr	Leu	Ala	Ser	His	Phe	Gly	Lys	Leu	
			340					345					350			
His	Glu	Asn	Tyr	Asn	Ser	Ser	Ile	Ala	Gly	His	Ile	Pro	Thr	Gly	Phe	
		355					360					365				
Met	Pro	Pro	Lys	Val	Pro	Glu	Trp	Asn	Leu	Ile	Pro	Ser	Val	Ala	Val	
	370					375					380					
Asp	Ala	Ile	Ala	Ile	Ser	Ile	Ile	Gly	Phe	Ala	Ile	Thr	Val	Ser	Leu	
385					390					395					400	
Ser	Glu	Met	Phe	Ala	Lys	Lys	His	Gly	Tyr	Thr	Val	Lys	Ala	Asn	Gln	
				405					410					415		
Glu	Met	Tyr	Ala	Ile	Gly	Phe	Cys	Asn	Ile	Ile	Pro	Ser	Phe	Phe	His	
			420					425					430			
Cys	Phe	Thr	Thr	Ser	Ala	Ala	Leu	Ala	Lys	Thr	Leu	Val	Lys	Glu	Ser	
		435					440					445				
Thr	Gly	Cys	His	Thr	Gln	Leu	Ser	Gly	Val	Val	Thr	Ala	Leu	Val	Leu	
	450					455					460					
Leu	Leu	Val	Leu	Leu	Val	Ile	Ala	Pro	Leu	Phe	Tyr	Ser	Leu	Gln	Lys	
465					470					475					480	
Ser	Val	Leu	Gly	Val	Ile	Thr	Ile	Val	Asn	Leu	Arg	Gly	Ala	Leu	Arg	
				485					490					495		
Lys	Phe	Arg	Asp	Leu	Pro	Lys	Met	Trp	Ser	Ile	Ser	Arg	Met	Asp	Thr	
			500					505					510			
Val	Ile	Trp	Phe	Val	Thr	Met	Leu	Ser	Ser	Ala	Leu	Leu	Ser	Thr	Glu	
		515					520					525				
Ile	Gly	Leu	Leu	Val	Gly	Val	Cys	Phe	Ser	Ile	Phe	Cys	Val	Ile	Leu	
	530					535					540					
Arg	Thr	Gln	Lys	Pro	Lys	Ser	Ser	Leu	Leu	Gly	Leu	Val	Glu	Glu	Ser	
545					550					555					560	
Glu	Val	Phe	Glu	Ser	Val	Ser	Ala	Tyr	Lys	Asn	Leu	Gln	Thr	Lys	Pro	
				565					570					575		
Gly	Ile	Lys	Ile	Phe	Arg	Phe	Val	Ala	Pro	Leu	Tyr	Tyr	Ile	Asn	Lys	
			580					585					590			
Glu	Cys	Phe	Lys	Ser	Ala	Leu	Tyr	Lys	Gln	Thr	Val	Asn	Pro	Ile	Leu	
		595					600					605				
Ile	Lys	Val	Ala	Trp	Lys	Lys	Ala	Ala	Lys	Arg	Lys	Ile	Lys	Glu	Lys	

610		615		620
Val Val Thr Leu Gly Gly Ile Gln Asp Glu Met Ser Val Gln Leu Ser				
625		630		635
His Asp Pro Leu Glu Leu His Thr Ile Val Ile Asp Cys Ser Ala Ile				640
	645		650	
Gln Phe Leu Asp Thr Ala Gly Ile His Thr Leu Lys Glu Val Arg Arg				655
	660		665	
Asp Tyr Glu Ala Ile Gly Ile Gln Val Leu Leu Ala Gln Cys Asn Pro				670
	675		680	
Thr Val Arg Asp Ser Leu Thr Asn Gly Glu Tyr Cys Lys Lys Glu Glu				685
	690		695	
Glu Asn Leu Leu Phe Tyr Ser Val Tyr Glu Ala Met Ala Phe Ala Glu				700
705		710		715
Val Ser Lys Asn Gln Lys Gly Val Cys Val Pro Asn Gly Leu Ser Leu				720
	725		730	
				735
Ser Ser Asp				

<210> 177  
 <211> 709  
 <212> PRT  
 <213> Homo sapiens

<400> 177
Met Ala Glu Val Glu Asp Gln Ala Ala Arg Asp Met Lys Arg Leu Glu
1 5 10 15
Glu Lys Asp Lys Glu Arg Lys Asn Val Lys Gly Ile Arg Asp Asp Ile
20 25 30
Glu Glu Glu Asp Asp Gln Glu Ala Tyr Phe Arg Tyr Met Ala Glu Asn
35 40 45
Pro Thr Ala Gly Val Val Gln Glu Glu Glu Glu Asp Asn Leu Glu Tyr
50 55 60
Asp Ser Asp Gly Asn Pro Ile Ala Pro Thr Lys Lys Ile Ile Asp Pro
65 70 75 80
Leu Pro Pro Ile Asp His Ser Glu Ile Asp Tyr Pro Pro Phe Glu Lys
85 90 95
Asn Phe Tyr Asn Glu His Glu Glu Ile Thr Asn Leu Thr Pro Gln Gln
100 105 110
Leu Ile Asp Leu Arg His Lys Leu Asn Leu Arg Val Ser Gly Ala Ala
115 120 125
Pro Pro Arg Pro Gly Ser Ser Phe Ala His Phe Gly Phe Asp Glu Gln
130 135 140
Leu Met His Gln Ile Arg Lys Ser Glu Tyr Thr Gln Pro Thr Pro Ile
145 150 155 160
Gln Cys Gln Gly Val Pro Val Ala Leu Ser Gly Arg Asp Met Ile Gly
165 170 175
Ile Ala Lys Thr Gly Ser Gly Lys Thr Ala Ala Phe Ile Trp Pro Met
180 185 190
Leu Ile His Ile Met Asp Gln Lys Glu Leu Glu Pro Gly Asp Gly Pro
195 200 205
Ile Ala Val Ile Val Cys Pro Thr Arg Glu Leu Cys Gln Gln Ile His
210 215 220
Ala Glu Cys Lys Arg Phe Gly Lys Ala Tyr Asn Leu Arg Ser Val Ala
225 230 235 240
Val Tyr Gly Gly Gly Ser Met Trp Glu Gln Ala Lys Ala Leu Gln Glu
245 250 255

Gly	Ala	Glu	Ile	Val	Val	Cys	Thr	Pro	Gly	Arg	Leu	Ile	Asp	His	Val	260	265	270
Lys	Lys	Lys	Ala	Thr	Asn	Leu	Gln	Arg	Val	Ser	Tyr	Leu	Val	Phe	Asp	275	280	285
Glu	Ala	Asp	Arg	Met	Phe	Asp	Met	Gly	Phe	Glu	Tyr	Gln	Val	Arg	Ser	290	295	300
Ile	Ala	Ser	His	Val	Arg	Pro	Asp	Arg	Gln	Thr	Leu	Leu	Phe	Ser	Ala	305	310	315
Thr	Phe	Arg	Lys	Lys	Ile	Glu	Lys	Leu	Ala	Arg	Asp	Ile	Leu	Ile	Asp	325	330	335
Pro	Ile	Arg	Val	Val	Gln	Gly	Asp	Ile	Gly	Glu	Ala	Asn	Glu	Asp	Val	340	345	350
Thr	Gln	Ile	Val	Glu	Ile	Leu	His	Ser	Gly	Pro	Ser	Lys	Trp	Asn	Trp	355	360	365
Leu	Thr	Arg	Arg	Leu	Val	Glu	Phe	Thr	Ser	Ser	Gly	Ser	Val	Leu	Leu	370	375	380
Phe	Val	Thr	Lys	Lys	Ala	Asn	Ala	Glu	Glu	Leu	Ala	Asn	Asn	Leu	Lys	385	390	395
Gln	Glu	Gly	His	Asn	Leu	Gly	Leu	Leu	His	Gly	Asp	Met	Asp	Gln	Ser	405	410	415
Glu	Arg	Asn	Lys	Val	Ile	Ser	Asp	Phe	Lys	Lys	Lys	Asp	Ile	Pro	Val	420	425	430
Leu	Val	Ala	Thr	Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Pro	Ser	Ile	435	440	445
Lys	Thr	Val	Ile	Asn	Tyr	Asp	Val	Ala	Arg	Asp	Ile	Asp	Thr	His	Thr	450	455	460
His	Arg	Ile	Gly	Arg	Thr	Gly	Arg	Ala	Gly	Glu	Lys	Gly	Val	Ala	Tyr	465	470	475
Thr	Leu	Leu	Thr	Pro	Lys	Asp	Ser	Asn	Phe	Ala	Gly	Asp	Leu	Val	Arg	485	490	495
Asn	Leu	Glu	Gly	Ala	Asn	Gln	His	Val	Ser	Lys	Glu	Leu	Leu	Asp	Leu	500	505	510
Ala	Met	Gln	Asn	Ala	Trp	Phe	Arg	Lys	Ser	Arg	Phe	Lys	Gly	Gly	Lys	515	520	525
Gly	Lys	Lys	Leu	Asn	Ile	Gly	Gly	Gly	Gly	Leu	Gly	Tyr	Arg	Glu	Arg	530	535	540
Pro	Gly	Leu	Gly	Ser	Glu	Asn	Met	Asp	Arg	Gly	Asn	Asn	Asn	Val	Met	545	550	555
Ser	Asn	Tyr	Glu	Ala	Tyr	Lys	Pro	Ser	Thr	Gly	Ala	Met	Gly	Asp	Arg	565	570	575
Leu	Thr	Ala	Met	Lys	Ala	Ala	Phe	Gln	Ser	Gln	Tyr	Lys	Ser	His	Phe	580	585	590
Val	Ala	Ala	Ser	Leu	Ser	Asn	Gln	Lys	Ala	Gly	Ser	Ser	Ala	Ala	Gly	595	600	605
Ala	Ser	Gly	Trp	Thr	Ser	Ala	Gly	Ser	Leu	Asn	Ser	Val	Pro	Thr	Asn	610	615	620
Ser	Ala	Gln	Gln	Gly	His	Asn	Ser	Pro	Asp	Ser	Pro	Val	Thr	Ser	Ala	625	630	635
Ala	Lys	Gly	Ile	Pro	Gly	Phe	Gly	Asn	Thr	Gly	Asn	Ile	Ser	Gly	Ala	645	650	655
Pro	Val	Thr	Tyr	Pro	Ser	Ala	Gly	Ala	Gln	Gly	Val	Asn	Asn	Thr	Ala	660	665	670
Ser	Gly	Asn	Asn	Ser	Arg	Glu	Gly	Thr	Gly	Gly	Ser	Asn	Gly	Lys	Arg	675	680	685
Glu	Arg	Tyr	Thr	Glu	Asn	Arg	Gly	Ser	Ser	Pro	Ser	Gln	Ser	Arg	Arg	690	695	700
Asp	Trp	Gln	Ser	Ala														

705

<210> 178  
 <211> 5178  
 <212> PRT  
 <213> Homo sapiens

<400> 178

Met	Gly	Leu	Pro	Leu	Ala	Arg	Leu	Ala	Ala	Val	Cys	Leu	Ala	Leu	Ser
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Leu	Ala	Gly	Gly	Ser	Glu	Leu	Gln	Thr	Glu	Gly	Arg	Thr	Arg	Tyr	His
			20					25					30		
Gly	Arg	Asn	Val	Cys	Ser	Thr	Trp	Gly	Asn	Phe	His	Tyr	Lys	Thr	Phe
		35					40					45			
Asp	Gly	Asp	Val	Phe	Arg	Phe	Pro	Gly	Leu	Cys	Asp	Tyr	Asn	Phe	Ala
	50					55					60				
Ser	Asp	Cys	Arg	Gly	Ser	Tyr	Lys	Glu	Phe	Ala	Val	His	Leu	Lys	Arg
65					70					75					80
Gly	Pro	Gly	Gln	Ala	Glu	Ala	Pro	Ala	Gly	Val	Glu	Ser	Ile	Leu	Leu
			85						90					95	
Thr	Ile	Lys	Asp	Asp	Thr	Ile	Tyr	Leu	Thr	Arg	His	Leu	Ala	Val	Leu
			100					105					110		
Asn	Gly	Ala	Val	Val	Ser	Thr	Pro	His	Tyr	Ser	Pro	Gly	Leu	Leu	Ile
		115					120					125			
Glu	Lys	Ser	Asp	Ala	Tyr	Thr	Lys	Val	Tyr	Ser	Arg	Ala	Gly	Leu	Thr
	130					135					140				
Leu	Met	Trp	Asn	Arg	Glu	Asp	Ala	Leu	Met	Leu	Glu	Leu	Asp	Thr	Lys
145				150						155					160
Phe	Arg	Asn	His	Thr	Cys	Gly	Leu	Cys	Gly	Asp	Tyr	Asn	Gly	Leu	Gln
			165						170					175	
Ser	Tyr	Ser	Glu	Phe	Leu	Ser	Asp	Gly	Val	Leu	Phe	Ser	Pro	Leu	Glu
			180					185					190		
Phe	Gly	Asn	Met	Gln	Lys	Ile	Asn	Gln	Pro	Asp	Val	Val	Cys	Glu	Asp
		195					200					205			
Pro	Glu	Glu	Glu	Val	Ala	Pro	Ala	Ser	Cys	Ser	Glu	His	Arg	Ala	Glu
	210					215					220				
Cys	Glu	Arg	Leu	Leu	Thr	Ala	Glu	Ala	Phe	Ala	Asp	Cys	Gln	Asp	Leu
225					230					235					240
Val	Pro	Leu	Glu	Pro	Tyr	Leu	Arg	Ala	Cys	Gln	Gln	Asp	Arg	Cys	Arg
			245						250					255	
Cys	Pro	Gly	Gly	Asp	Thr	Cys	Val	Cys	Ser	Thr	Val	Ala	Glu	Phe	Ser
			260					265					270		
Arg	Gln	Cys	Ser	His	Ala	Gly	Gly	Arg	Pro	Gly	Asn	Trp	Arg	Thr	Ala
		275					280					285			
Thr	Leu	Cys	Pro	Lys	Thr	Cys	Pro	Gly	Asn	Leu	Val	Tyr	Leu	Glu	Ser
	290					295					300				
Gly	Ser	Pro	Cys	Met	Asp	Thr	Cys	Ser	His	Leu	Glu	Val	Ser	Ser	Leu
305					310					315					320
Cys	Glu	Glu	His	Arg	Met	Asp	Gly	Cys	Phe	Cys	Pro	Glu	Gly	Thr	Val
			325						330					335	
Tyr	Asp	Asp	Ile	Gly	Asp	Ser	Gly	Cys	Val	Pro	Val	Ser	Gln	Cys	His
			340					345					350		
Cys	Arg	Leu	His	Gly	His	Leu	Tyr	Thr	Pro	Gly	Gln	Glu	Ile	Thr	Asn
		355					360					365			
Asp	Cys	Glu	Gln	Cys	Val	Cys	Asn	Ala	Gly	Arg	Trp	Val	Cys	Lys	Asp
	370						375					380			

Leu	Pro	Cys	Pro	Gly	Thr	Cys	Ala	Leu	Glu	Gly	Gly	Ser	His	Ile	Thr
385					390					395					400
Thr	Phe	Asp	Gly	Lys	Thr	Tyr	Thr	Phe	His	Gly	Asp	Cys	Tyr	Tyr	Val
			405						410					415	
Leu	Ala	Lys	Gly	Asp	His	Asn	Asp	Ser	Tyr	Ala	Leu	Leu	Gly	Glu	Leu
			420					425					430		
Ala	Pro	Cys	Gly	Ser	Thr	Asp	Lys	Gln	Thr	Cys	Leu	Lys	Thr	Val	Val
		435					440					445			
Leu	Leu	Ala	Asp	Lys	Lys	Lys	Asn	Ala	Val	Val	Phe	Lys	Ser	Asp	Gly
	450					455					460				
Ser	Val	Leu	Leu	Asn	Gln	Leu	Gln	Val	Asn	Leu	Pro	His	Val	Thr	Ala
465					470					475					480
Ser	Phe	Ser	Val	Phe	Arg	Pro	Ser	Ser	Tyr	His	Ile	Met	Val	Ser	Met
				485					490					495	
Ala	Ile	Gly	Val	Arg	Leu	Gln	Val	Gln	Leu	Ala	Pro	Val	Met	Gln	Leu
			500					505					510		
Phe	Val	Thr	Leu	Asp	Gln	Ala	Ser	Gln	Gly	Gln	Val	Gln	Gly	Leu	Cys
		515					520					525			
Gly	Asn	Phe	Asn	Gly	Leu	Glu	Gly	Asp	Asp	Phe	Lys	Thr	Ala	Ser	Gly
	530					535					540				
Leu	Val	Glu	Ala	Thr	Gly	Ala	Gly	Phe	Ala	Asn	Thr	Trp	Lys	Ala	Gln
545					550					555					560
Ser	Thr	Cys	His	Asp	Lys	Leu	Asp	Trp	Leu	Asp	Asp	Pro	Cys	Ser	Leu
				565					570					575	
Asn	Ile	Glu	Ser	Ala	Asn	Tyr	Ala	Glu	His	Trp	Cys	Ser	Leu	Leu	Lys
			580					585					590		
Lys	Thr	Glu	Thr	Pro	Phe	Gly	Arg	Cys	His	Ser	Ala	Val	Asp	Pro	Ala
		595					600					605			
Glu	Tyr	Tyr	Lys	Arg	Cys	Lys	Tyr	Asp	Thr	Cys	Asn	Cys	Gln	Asn	Asn
	610					615					620				
Glu	Asp	Cys	Leu	Cys	Ala	Ala	Leu	Ser	Ser	Tyr	Ala	Arg	Ala	Cys	Thr
625					630					635					640
Ala	Lys	Gly	Val	Met	Leu	Trp	Gly	Trp	Arg	Glu	His	Val	Cys	Asn	Lys
				645					650					655	
Asp	Val	Gly	Ser	Cys	Pro	Asn	Ser	Gln	Val	Phe	Leu	Tyr	Asn	Leu	Thr
			660					665					670		
Thr	Cys	Gln	Gln	Thr	Cys	Arg	Ser	Leu	Ser	Glu	Ala	Asp	Ser	His	Cys
		675					680					685			
Leu	Glu	Gly	Phe	Ala	Pro	Val	Asp	Gly	Cys	Gly	Cys	Pro	Asp	His	Thr
	690					695					700				
Phe	Leu	Asp	Glu	Lys	Gly	Arg	Cys	Val	Pro	Leu	Ala	Lys	Cys	Ser	Cys
705					710					715					720
Tyr	His	Arg	Gly	Leu	Tyr	Leu	Glu	Ala	Gly	Asp	Val	Val	Val	Arg	Gln
				725					730					735	
Glu	Glu	Arg	Cys	Val	Cys	Arg	Asp	Gly	Arg	Leu	His	Cys	Arg	Gln	Ile
			740					745					750		
Arg	Leu	Ile	Gly	Gln	Ser	Cys	Thr	Ala	Pro	Lys	Ile	His	Met	Asp	Cys
		755					760					765			
Ser	Asn	Leu	Thr	Ala	Leu	Ala	Thr	Ser	Lys	Pro	Arg	Ala	Leu	Ser	Cys
	770					775					780				
Gln	Thr	Leu	Ala	Ala	Gly	Tyr	Tyr	His	Thr	Glu	Cys	Val	Ser	Gly	Cys
785					790					795					800
Val	Cys	Pro	Asp	Gly	Leu	Met	Asp	Asp	Gly	Arg	Gly	Gly	Cys	Val	Val
				805					810					815	
Glu	Lys	Glu	Cys	Pro	Cys	Val	His	Asn	Asn	Asp	Leu	Tyr	Ser	Ser	Gly
			820					825					830		
Ala	Lys	Ile	Lys	Val	Asp	Cys	Asn	Thr	Cys	Thr	Cys	Lys	Arg	Gly	Arg



Thr	Thr	Pro	Lys	Leu	Cys	Cys	Leu	Trp	Ser	Asp	Trp	Ile	Asn	Glu	Asp		
			1300					1305					1310				
His	Pro	Ser	Ser	Gly	Ser	Asp	Asp	Gly	Asp	Arg	Glu	Pro	Phe	Asp	Gly		
		1315					1320					1325					
Val	Cys	Gly	Ala	Pro	Glu	Asp	Ile	Glu	Cys	Arg	Ser	Val	Lys	Asp	Pro		
	1330					1335					1340						
His	Leu	Ser	Leu	Glu	Gln	His	Gly	Gln	Lys	Val	Gln	Cys	Asp	Val	Ser		
1345					1350					1355					1360		
Val	Gly	Phe	Ile	Cys	Lys	Asn	Glu	Asp	Gln	Phe	Gly	Asn	Gly	Pro	Phe		
			1365					1370						1375			
Gly	Leu	Cys	Tyr	Asp	Tyr	Lys	Ile	Arg	Val	Asn	Cys	Cys	Trp	Pro	Met		
		1380						1385					1390				
Asp	Lys	Cys	Ile	Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro		
		1395					1400					1405					
Pro	Pro	Thr	Thr	Thr	Thr	Thr	Leu	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro		
	1410					1415					1420						
Pro	Thr	Thr	Thr	Thr	Thr	Thr	Pro	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro		
1425					1430					1435					1440		
Pro	Ile	Thr	Thr	Thr	Thr	Thr	Pro	Leu	Pro	Thr	Thr	Thr	Pro	Ser	Pro		
			1445					1450						1455			
Pro	Ile	Ser	Thr	Thr	Thr	Thr	Pro	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro		
		1460						1465					1470				
Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Thr		
	1475					1480					1485						
Thr	Thr	Thr	Thr	Thr	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Met			
	1490				1495					1500							
Thr	Thr	Pro	Ile	Thr	Pro	Pro	Ala	Ser	Thr	Thr	Thr	Leu	Pro	Pro	Thr		
1505				1510						1515					1520		
Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Thr	Thr	Thr	Pro	Pro	Pro	Thr		
			1525					1530						1535			
Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Pro	Ile	Thr	Pro	Pro	Thr	Ser		
		1540						1545					1550				
Thr	Thr	Thr	Leu	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Pro	Thr	Thr		
	1555					1560					1565						
Thr	Thr	Thr	Pro	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr		
	1570					1575					1580						
Thr	Pro	Ser	Pro	Pro	Thr	Ile	Thr	Thr	Thr	Thr	Pro	Pro	Pro	Thr	Thr		
1585					1590					1595					1600		
Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Thr	Thr	Pro	Pro	Pro	Pro	Thr	Thr		
		1605						1610					1615				
Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Pro	Ile	Thr	Pro	Pro	Thr	Ser	Thr		
	1620							1625					1630				
Thr	Thr	Leu	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Pro	Thr	Thr	Thr		
	1635					1640						1645					
Thr	Thr	Pro	Pro	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Thr		
	1650					1655					1660						
Pro	Ser	Pro	Pro	Ile	Thr	Thr	Thr	Thr	Thr	Pro	Pro	Pro	Thr	Thr	Thr		
1665				1670						1675					1680		
Pro	Ser	Ser	Pro	Ile	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Met		
		1685						1690					1695				
Thr	Thr	Pro	Ser	Pro	Thr	Thr	Thr	Pro	Ser	Ser	Pro	Ile	Thr	Thr	Thr		
	1700							1705					1710				
Thr	Thr	Pro	Ser	Ser	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Pro	Thr	Thr	Met		
	1715					1720					1725						
Thr	Thr	Pro	Ser	Pro	Thr	Thr	Thr	Pro	Ser	Pro	Pro	Thr	Thr	Thr	Met		
	1730					1735					1740						
Thr	Thr	Leu	Pro	Pro	Thr	Thr	Thr	Ser	Ser	Pro	Leu	Thr	Thr	Thr	Pro		

1745		1750		1755		1760
Leu Pro Pro Ser	Ile Thr Pro Pro Thr	Phe Ser Pro Phe Ser Thr Thr				
	1765	1770		1775		
Thr Pro Thr Thr	Pro Cys Val Pro Leu Cys Asn Trp Thr Gly Trp Leu					
	1780	1785		1790		
Asp Ser Gly Lys	Pro Asn Phe His Lys Pro Gly Gly Asp Thr Glu Leu					
	1795	1800		1805		
Ile Gly Asp Val Cys Gly	Pro Gly Trp Ala Ala Asn Ile Ser Cys Arg					
	1810	1815		1820		
Ala Thr Met Tyr	Pro Asp Val Pro Ile Gly Gln Leu Gly Gln Thr Val					
	1825	1830		1835		1840
Val Cys Asp Val	Ser Val Gly Leu Ile Cys Lys Asn Glu Asp Gln Lys					
	1845	1850		1855		
Pro Gly Gly Val	Ile Pro Met Ala Phe Cys Leu Asn Tyr Glu Ile Asn					
	1860	1865		1870		
Val Gln Cys Cys	Glu Cys Val Thr Gln Pro Thr Thr Met Thr Thr Thr					
	1875	1880		1885		
Thr Thr Glu Asn	Pro Thr Pro Pro Thr Thr Thr Pro Ile Thr Thr Thr					
	1890	1895		1900		
Thr Thr Val Thr	Pro Thr Pro Thr Pro Thr Gly Thr Gln Thr Pro Thr					
	1905	1910		1915		1920
Thr Thr Pro Ile	Thr Thr Thr Thr Thr Val Thr Pro Thr Pro Thr Pro					
	1925	1930		1935		
Thr Gly Thr Gln	Thr Pro Thr Thr Thr Pro Ile Thr Thr Thr Thr Thr					
	1940	1945		1950		
Val Thr Pro Thr	Pro Thr Pro Thr Gly Thr Gln Thr Pro Thr Thr Thr					
	1955	1960		1965		
Pro Ile Thr Thr	Thr Thr Thr Val Thr Pro Thr Pro Thr Pro Thr Gly					
	1970	1975		1980		
Thr Gln Thr Pro	Thr Thr Thr Pro Ile Thr Thr Thr Thr Thr Val Thr					
	1985	1990		1995		2000
Pro Thr Pro Thr	Pro Thr Gly Thr Gln Thr Pro Thr Thr Thr Pro Ile					
	2005	2010		2015		
Thr Thr Thr Thr	Thr Val Thr Pro Thr Pro Thr Pro Thr Gly Thr Gln					
	2020	2025		2030		
Thr Pro Thr Thr	Thr Pro Ile Thr Thr Thr Thr Thr Val Thr Pro Thr					
	2035	2040		2045		
Pro Thr Pro Thr	Gly Thr Gln Thr Pro Thr Thr Thr Pro Ile Thr Thr					
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Thr Thr Thr Pro	Ile Thr Thr Thr Thr Thr Val Thr Pro Thr Pro Thr					
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Thr Val Thr Pro	Thr Pro Thr Pro Thr Gly Thr Gln Thr Pro Thr Thr					
	2115	2120		2125		
Thr Pro Ile Thr	Thr Thr Thr Thr Val Thr Pro Thr Pro Thr Pro Thr					
	2130	2135		2140		
Gly Thr Gln Thr	Pro Thr Thr Thr Pro Ile Thr Thr Thr Thr Thr Val					
	2145	2150		2155		2160
Thr Pro Thr Pro	Thr Pro Thr Gly Thr Gln Thr Pro Thr Thr Thr Pro					
	2165	2170		2175		
Ile Thr Thr Thr	Thr Thr Val Thr Pro Thr Pro Thr Pro Thr Gly Thr					
	2180	2185		2190		
Gln Thr Pro Thr	Thr Thr Pro Ile Thr Thr Thr Thr Thr Val Thr Pro					
	2195	2200		2205		



Thr	Pro	Thr	Pro	Thr	Gly	Thr	Gln	Thr	Pro	Thr	Thr	Thr	Pro	Ile	Thr	
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Thr	Thr	Pro	Ile	Thr	Thr	Thr	Thr	Thr	Val	Thr	Pro	Thr	Pro	Thr	Pro	
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Pro	Ile	Thr	Thr	Thr	Thr	Thr	Val	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	
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Thr	Gln	Thr	Pro	Thr	Thr	Thr	Pro	Ile	Thr	Thr	Thr	Thr	Thr	Val	Thr	
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Pro	Thr	Pro	Thr	Pro	Thr	Gly	Thr	Gln	Thr	Pro	Thr	Thr	Thr	Pro	Ile	
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Thr	Pro	Ile	Thr	Thr	Thr	Thr	Thr	Val	Thr	Pro	Thr	Pro	Thr	Pro	Thr
		3235					3240					3245			
Gly	Thr	Gln	Thr	Pro	Thr	Thr	Thr	Pro	Ile	Thr	Thr	Thr	Thr	Thr	Val
	3250					3255					3260				
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Thr	Gln	Thr	Pro	Thr	Thr	Thr	Pro
3265					3270					3275					3280
Ile	Thr	Thr	Thr	Thr	Thr	Val	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Thr
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Thr	Thr	Thr	Thr	Val	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Thr	Gln	Thr
	3330					3335						3340			
Pro	Thr	Thr	Thr	Pro	Ile	Thr	Thr	Thr	Thr	Thr	Val	Thr	Pro	Thr	Pro
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Pro Thr Thr Thr Pro	Ile Thr Thr Thr Thr Thr Val Thr Pro Thr Pro			
	3715	3720		3725
Thr Pro Thr Gly Thr	Gln Thr Pro Thr Thr Thr Pro Ile Thr Thr Thr			
	3730	3735		3740
Thr Thr Val Thr Pro	Thr Pro Thr Pro Thr Gly Thr Gln Thr Pro Thr			
3745	3750	3755		3760
Thr Thr Pro Ile Thr	Thr Thr Thr Val Thr Pro Thr Pro Thr Pro			
	3765	3770		3775
Thr Gly Thr Gln Thr	Pro Thr Thr Thr Pro Ile Thr Thr Thr Thr Thr			
	3780	3785		3790
Val Thr Pro Thr Pro	Thr Pro Thr Gly Thr Gln Thr Pro Thr Thr Thr			
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Pro Ile Thr Thr Thr	Thr Thr Val Thr Pro Thr Pro Thr Pro Thr Gly			
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Thr Gln Thr Pro Thr	Thr Thr Pro Ile Thr Thr Thr Thr Thr Val Thr			
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Pro Thr Pro Thr Pro	Thr Gly Thr Gln Thr Pro Thr Thr Thr Pro Ile			
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Pro Thr Pro Thr Gly	Thr Gln Thr Pro Thr Thr Thr Pro Ile Thr Thr			
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Thr Thr Thr Val Thr	Pro Thr Pro Thr Pro Thr Gly Thr Gln Thr Pro			
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Pro Thr Gly Thr Gln	Thr Pro Thr Thr Thr Pro Ile Thr Thr Thr Thr			
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 Val Glu Asp Pro Asp Gly Cys Cys Trp His Trp Glu Cys Asp Cys Tyr  
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 Cys Thr Gly Trp Gly Asp Pro His Tyr Val Thr Phe Asp Gly Leu Tyr

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Gln Asp Cys Val Cys Thr Asp Lys Val Asp Asn Asn Thr Leu Leu Asn  
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 Pro Gly Asp Phe Lys Ser Asp Pro Lys Asn Asn Cys Thr Phe Phe Ser  
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 Cys Val Lys Ile His Asn Gln Leu Ile Ser Ser Val Ser Asn Ile Thr  
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<211> 508

<212> PRT

<213> Homo sapiens

<400> 179

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 20 25 30  
 His Gln Arg Phe Ser Thr Ala Ser Ala Val Pro Leu Ala Lys Thr Asp  
 35 40 45  
 Thr Trp Pro Lys Asp Val Gly Ile Leu Ala Leu Glu Val Tyr Phe Pro  
 50 55 60  
 Ala Gln Tyr Val Asp Gln Thr Asp Leu Glu Lys Tyr Asn Asn Val Glu  
 65 70 75 80  
 Ala Gly Lys Tyr Thr Val Gly Leu Gly Gln Thr Arg Met Gly Phe Cys  
 85 90 95  
 Ser Val Gln Glu Asp Ile Asn Ser Leu Cys Leu Thr Val Val Gln Arg  
 100 105 110  
 Leu Met Glu Arg Ile Gln Leu Pro Trp Asp Ser Val Gly Arg Leu Glu  
 115 120 125  
 Val Gly Thr Glu Thr Ile Ile Asp Lys Ser Lys Ala Val Lys Thr Val  
 130 135 140  
 Leu Met Glu Leu Phe Gln Asp Ser Gly Asn Thr Asp Ile Glu Gly Ile  
 145 150 155 160

Asp	Thr	Thr	Asn	Ala	Cys	Tyr	Gly	Gly	Thr	Ala	Ser	Leu	Phe	Asn	Ala	
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Ala	Asn	Trp	Met	Glu	Ser	Ser	Ser	Trp	Asp	Gly	Arg	Tyr	Ala	Met	Val	
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Val	Cys	Gly	Asp	Ile	Ala	Val	Tyr	Pro	Ser	Gly	Asn	Ala	Arg	Pro	Thr	
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Ala	Leu	Glu	Arg	Gly	Leu	Arg	Gly	Thr	His	Met	Glu	Asn	Val	Tyr	Asp	
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Phe	Tyr	Lys	Pro	Asn	Leu	Ala	Ser	Glu	Tyr	Pro	Ile	Val	Asp	Gly	Lys	
				245					250					255		
Leu	Ser	Ile	Gln	Cys	Tyr	Leu	Arg	Ala	Leu	Asp	Arg	Cys	Tyr	Thr	Ser	
			260					265					270			
Tyr	Arg	Lys	Lys	Ile	Gln	Asn	Gln	Trp	Lys	Gln	Ala	Gly	Ser	Asp	Arg	
		275					280					285				
Pro	Phe	Thr	Leu	Asp	Asp	Leu	Gln	Tyr	Met	Ile	Phe	His	Thr	Pro	Phe	
	290					295					300					
Cys	Lys	Met	Val	Gln	Lys	Ser	Leu	Ala	Arg	Leu	Met	Phe	Asn	Asp	Phe	
305					310					315					320	
Leu	Ser	Ala	Ser	Ser	Asp	Thr	Gln	Thr	Ser	Leu	Tyr	Lys	Gly	Leu	Glu	
				325					330					335		
Ala	Phe	Gly	Gly	Leu	Lys	Leu	Glu	Asp	Thr	Tyr	Thr	Asn	Lys	Asp	Leu	
		340						345					350			
Asp	Lys	Ala	Leu	Leu	Lys	Ala	Ser	Gln	Asp	Met	Phe	Asp	Lys	Lys	Thr	
		355					360					365				
Lys	Ala	Ser	Leu	Tyr	Leu	Ser	Thr	His	Asn	Gly	Asn	Met	Tyr	Thr	Ser	
	370					375					380					
Ser	Leu	Tyr	Gly	Cys	Leu	Ala	Ser	Leu	Leu	Ser	His	His	Ser	Ala	Gln	
385					390					395					400	
Glu	Leu	Ala	Gly	Ser	Arg	Ile	Gly	Ala	Phe	Ser	Tyr	Gly	Ser	Gly	Leu	
				405					410					415		
Ala	Ala	Ser	Phe	Phe	Ser	Phe	Arg	Val	Ser	Gln	Asp	Ala	Ala	Pro	Gly	
			420					425					430			
Ser	Pro	Leu	Asp	Lys	Leu	Val	Ser	Ser	Thr	Ser	Asp	Leu	Pro	Lys	Arg	
		435					440					445				
Leu	Ala	Ser	Arg	Lys	Cys	Val	Ser	Pro	Glu	Glu	Phe	Thr	Glu	Ile	Met	
	450					455					460					
Asn	Gln	Arg	Glu	Gln	Phe	Tyr	His	Lys	Val	Asn	Phe	Ser	Pro	Pro	Gly	
465					470					475					480	
Asp	Thr	Asn	Ser	Leu	Phe	Pro	Gly	Thr	Trp	Tyr	Leu	Glu	Arg	Val	Asp	
				485					490					495		
Glu	Gln	His	Arg	Arg	Lys	Tyr	Ala	Arg	Arg	Pro	Val					
			500					505								

<210> 180  
 <211> 914  
 <212> PRT  
 <213> Homo sapiens

<400> 180  
 Met Gly Pro Phe Lys Ser Ser Val Phe Ile Leu Ile Leu His Leu Leu  
 1 5 10 15  
 Glu Gly Ala Leu Ser Asn Ser Leu Ile Gln Leu Asn Asn Asn Gly Tyr  
 20 25 30  
 Glu Gly Ile Val Val Ala Ile Asp Pro Asn Val Pro Glu Asp Glu Thr





Gln	Asn	Ser	Gln	Trp	Met	Asn	Gly	Thr	Val	Ile	Val	Asp	Ser	Thr	Val
			500					505					510		
Gly	Lys	Asp	Thr	Leu	Phe	Leu	Ile	Thr	Trp	Thr	Thr	Gln	Pro	Pro	Gln
		515					520					525			
Ile	Leu	Leu	Trp	Asp	Pro	Ser	Gly	Gln	Lys	Gln	Gly	Gly	Phe	Val	Val
	530					535					540				
Asp	Lys	Asn	Thr	Lys	Met	Ala	Tyr	Leu	Gln	Ile	Pro	Gly	Ile	Ala	Lys
545					550					555					560
Val	Gly	Thr	Trp	Lys	Tyr	Ser	Leu	Gln	Ala	Ser	Ser	Gln	Thr	Leu	Thr
				565					570					575	
Leu	Thr	Val	Thr	Ser	Arg	Ala	Ser	Asn	Ala	Thr	Leu	Pro	Pro	Ile	Thr
			580					585					590		
Val	Thr	Ser	Lys	Thr	Asn	Lys	Asp	Thr	Ser	Lys	Phe	Pro	Ser	Pro	Leu
		595					600					605			
Val	Val	Tyr	Ala	Asn	Ile	Arg	Gln	Gly	Ala	Ser	Pro	Ile	Leu	Arg	Ala
	610					615					620				
Ser	Val	Thr	Ala	Leu	Ile	Glu	Ser	Val	Asn	Gly	Lys	Thr	Val	Thr	Leu
625					630					635					640
Glu	Leu	Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	Ala	Thr	Lys	Asp	Asp	Gly
				645					650					655	
Val	Tyr	Ser	Arg	Tyr	Phe	Thr	Thr	Tyr	Asp	Thr	Asn	Gly	Arg	Tyr	Ser
			660					665					670		
Val	Lys	Val	Arg	Ala	Leu	Gly	Gly	Val	Asn	Ala	Ala	Arg	Arg	Arg	Val
		675					680					685			
Ile	Pro	Gln	Gln	Ser	Gly	Ala	Leu	Tyr	Ile	Pro	Gly	Trp	Ile	Glu	Asn
	690					695					700				
Asp	Glu	Ile	Gln	Trp	Asn	Pro	Pro	Arg	Pro	Glu	Ile	Asn	Lys	Asp	Asp
705					710					715					720
Val	Gln	His	Lys	Gln	Val	Cys	Phe	Ser	Arg	Thr	Ser	Ser	Gly	Gly	Ser
				725					730					735	
Phe	Val	Ala	Ser	Asp	Val	Pro	Asn	Ala	Pro	Ile	Pro	Asp	Leu	Phe	Pro
			740					745					750		
Pro	Gly	Gln	Ile	Thr	Asp	Leu	Lys	Ala	Glu	Ile	His	Gly	Gly	Ser	Leu
		755					760					765			
Ile	Asn	Leu	Thr	Trp	Thr	Ala	Pro	Gly	Asp	Asp	Tyr	Asp	His	Gly	Thr
	770					775					780				
Ala	His	Lys	Tyr	Ile	Ile	Arg	Ile	Ser	Thr	Ser	Ile	Leu	Asp	Leu	Arg
785					790					795					800
Asp	Lys	Phe	Asn	Glu	Ser	Leu	Gln	Val	Asn	Thr	Thr	Ala	Leu	Ile	Pro
			805						810					815	
Lys	Glu	Ala	Asn	Ser	Glu	Glu	Val	Phe	Leu	Phe	Lys	Pro	Glu	Asn	Ile
			820					825					830		
Thr	Phe	Glu	Asn	Gly	Thr	Asp	Leu	Phe	Ile	Ala	Ile	Gln	Ala	Val	Asp
		835					840					845			
Lys	Val	Asp	Leu	Lys	Ser	Glu	Ile	Ser	Asn	Ile	Ala	Arg	Val	Ser	Leu
	850					855					860				
Phe	Ile	Pro	Pro	Gln	Thr	Pro	Pro	Glu	Thr	Pro	Ser	Pro	Asp	Glu	Thr
865					870					875					880
Ser	Ala	Pro	Cys	Pro	Asn	Ile	His	Ile	Asn	Ser	Thr	Ile	Pro	Gly	Ile
			885						890					895	
His	Ile	Leu	Lys	Ile	Met	Trp	Lys	Trp	Ile	Gly	Glu	Leu	Gln	Leu	Ser
			900					905					910		
Ile	Ala														

<210> 181

<211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 181

Met	Asp	Pro	Asn	Cys	Ser	Cys	Ala	Ala	Gly	Val	Ser	Cys	Thr	Cys	Ala
1				5					10					15	
Gly	Ser	Cys	Lys	Cys	Lys	Glu	Cys	Lys	Cys	Thr	Ser	Cys	Lys	Lys	Ser
			20					25					30		
Cys	Cys	Ser	Cys	Cys	Pro	Val	Gly	Cys	Ser	Lys	Cys	Ala	Gln	Gly	Cys
			35				40					45			
Val	Cys	Lys	Gly	Ala	Ser	Glu	Lys	Cys	Ser	Cys	Cys	Asp			
	50					55					60				

<210> 182  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 182

Met	Ser	His	His	Trp	Gly	Tyr	Gly	Lys	His	Asn	Gly	Pro	Glu	His	Trp
1				5				10						15	
His	Lys	Asp	Phe	Pro	Ile	Ala	Lys	Gly	Glu	Arg	Gln	Ser	Pro	Val	Asp
			20					25					30		
Ile	Asp	Thr	His	Thr	Ala	Lys	Tyr	Asp	Pro	Ser	Leu	Lys	Pro	Leu	Ser
			35				40					45			
Val	Ser	Tyr	Asp	Gln	Ala	Thr	Ser	Leu	Arg	Ile	Leu	Asn	Asn	Gly	His
	50					55					60				
Ala	Phe	Asn	Val	Glu	Phe	Asp	Asp	Ser	Gln	Asp	Lys	Ala	Val	Leu	Lys
65				70					75					80	
Gly	Gly	Pro	Leu	Asp	Gly	Thr	Tyr	Arg	Leu	Ile	Gln	Phe	His	Phe	His
				85				90						95	
Trp	Gly	Ser	Leu	Asp	Gly	Gln	Gly	Ser	Glu	His	Thr	Val	Asp	Lys	Lys
			100				105						110		
Lys	Tyr	Ala	Ala	Glu	Leu	His	Leu	Val	His	Trp	Asn	Thr	Lys	Tyr	Gly
			115				120					125			
Asp	Phe	Gly	Lys	Ala	Val	Gln	Gln	Pro	Asp	Gly	Leu	Ala	Val	Leu	Gly
			130			135					140				
Ile	Phe	Leu	Lys	Val	Gly	Ser	Ala	Lys	Pro	Gly	Leu	Gln	Lys	Val	Val
145				150						155				160	
Asp	Val	Leu	Asp	Ser	Ile	Lys	Thr	Lys	Gly	Lys	Ser	Ala	Asp	Phe	Thr
				165				170						175	
Asn	Phe	Asp	Pro	Arg	Gly	Leu	Leu	Pro	Glu	Ser	Leu	Asp	Tyr	Trp	Thr
			180					185					190		
Tyr	Pro	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Leu	Leu	Glu	Cys	Val	Thr	Trp
			195				200					205			
Ile	Val	Leu	Lys	Glu	Pro	Ile	Ser	Val	Ser	Ser	Glu	Gln	Val	Leu	Lys
			210			215					220				
Phe	Arg	Lys	Leu	Asn	Phe	Asn	Gly	Glu	Gly	Glu	Pro	Glu	Glu	Leu	Met
225				230						235				240	
Val	Asp	Asn	Trp	Arg	Pro	Ala	Gln	Pro	Leu	Lys	Asn	Arg	Gln	Ile	Lys
				245				250						255	
Ala	Ser	Phe	Lys												
			260												

<210> 183  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 183  
 Met Asp Pro Asn Cys Ser Cys Glu Ala Gly Gly Ser Cys Ala Cys Ala  
 1 5 10 15  
 Gly Ser Cys Lys Cys Lys Lys Cys Lys Cys Thr Ser Cys Lys Lys Ser  
 20 25 30  
 Cys Cys Ser Cys Cys Pro Leu Gly Cys Ala Lys Cys Ala Gln Gly Cys  
 35 40 45  
 Ile Cys Lys Gly Ala Ser Glu Lys Cys Ser Cys Cys Ala  
 50 55 60

<210> 184  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 184  
 Met Asp Pro Asn Cys Ser Cys Ala Ala Gly Val Ser Cys Thr Cys Ala  
 1 5 10 15  
 Ser Ser Cys Lys Cys Lys Glu Cys Lys Cys Thr Ser Cys Lys Lys Ser  
 20 25 30  
 Cys Cys Ser Cys Cys Pro Val Gly Cys Ala Lys Cys Ala Gln Gly Cys  
 35 40 45  
 Ile Cys Lys Gly Ala Ser Glu Lys Cys Ser Cys Cys Ala  
 50 55 60

<210> 185  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 185  
 Met Leu Thr Val Ala Leu Leu Ala Leu Leu Cys Ala Ser Ala Ser Gly  
 1 5 10 15  
 Asn Ala Ile Gln Ala Arg Ser Ser Ser Tyr Ser Gly Glu Tyr Gly Ser  
 20 25 30  
 Gly Gly Gly Lys Arg Phe Ser His Ser Gly Asn Gln Leu Asp Gly Pro  
 35 40 45  
 Ile Thr Ala Leu Arg Val Arg Val Asn Thr Tyr Tyr Ile Val Gly Leu  
 50 55 60  
 Gln Val Arg Tyr Gly Lys Val Trp Ser Asp Tyr Val Gly Gly Arg Asn  
 65 70 75 80  
 Gly Asp Leu Glu Glu Ile Phe Leu His Pro Gly Glu Ser Val Ile Gln  
 85 90 95  
 Val Ser Gly Lys Tyr Lys Trp Tyr Leu Lys Lys Leu Val Phe Val Thr  
 100 105 110  
 Asp Lys Gly Arg Tyr Leu Ser Phe Gly Lys Asp Ser Gly Thr Ser Phe  
 115 120 125  
 Asn Ala Val Pro Leu His Pro Asn Thr Val Leu Arg Phe Ile Ser Gly  
 130 135 140  
 Arg Ser Gly Ser Leu Ile Asp Ala Ile Gly Leu His Trp Asp Val Tyr

